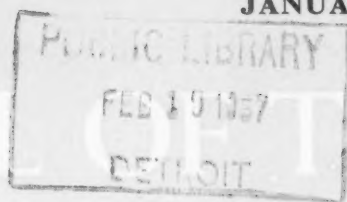


FINE ARTS DEPT. S

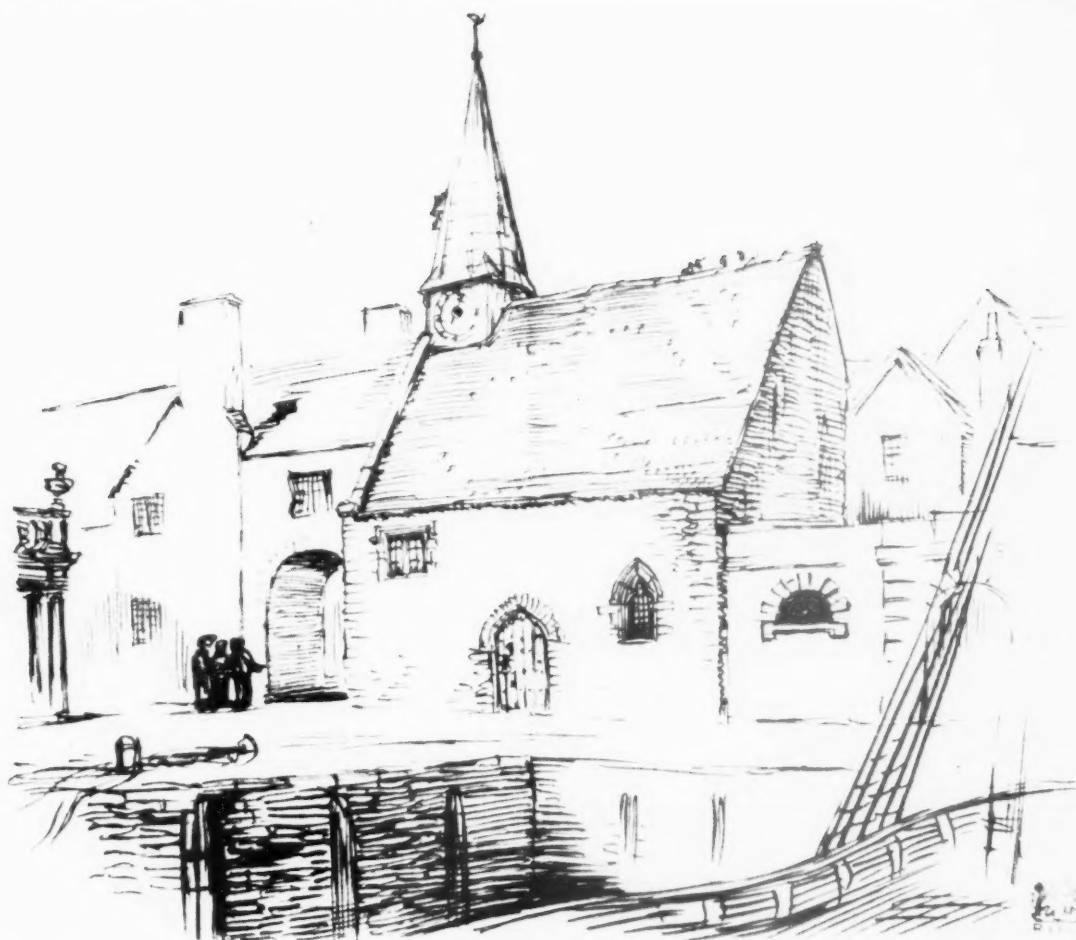
THIRD SERIES VOL 64 NUMBER 3

JANUARY 1957



THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

66 PORTLAND PLACE LONDON W1 • TWO SHILLINGS AND SIXPENCE



Reproduced from a drawing by W. R. Lethaby, 1857-1931



OFFICE EFFICIENCY THROUGH

"ARMOURCAST" GLASS DOORS

What an impression of brightness and efficiency is created in the office fitted with "ARMOURCAST" Glass Doors! Brightness from the way they borrow light to bring it into corridors. Efficiency from the way they smooth the essential comings and goings without jeopardising privacy. And added to these advantages are the ease with which they are kept clean and the absence of painting and maintenance costs.

For further information on the use of glass in building consult the Technical Sales and Service Department, St. Helens, Lancs. (Telephone: St. Helens 4001), or Selwyn House, Cleveland Row, St. James's, London, S.W.1. (Telephone: Whitehall 5672-6). Supplies are available through the usual trade channels. "ARMOURCAST" is a registered trade mark of Pilkington Brothers Limited.



PILKINGTON BROTHERS LIMITED
ST. HELENS, LANCASHIRE





Acoustics by **BURGESS**

FIRE!

Burgess Acoustic

Tiles will withstand a
2-hour fire reaching
1,000°C and thus give
added protection to
structural work behind
the ceiling.

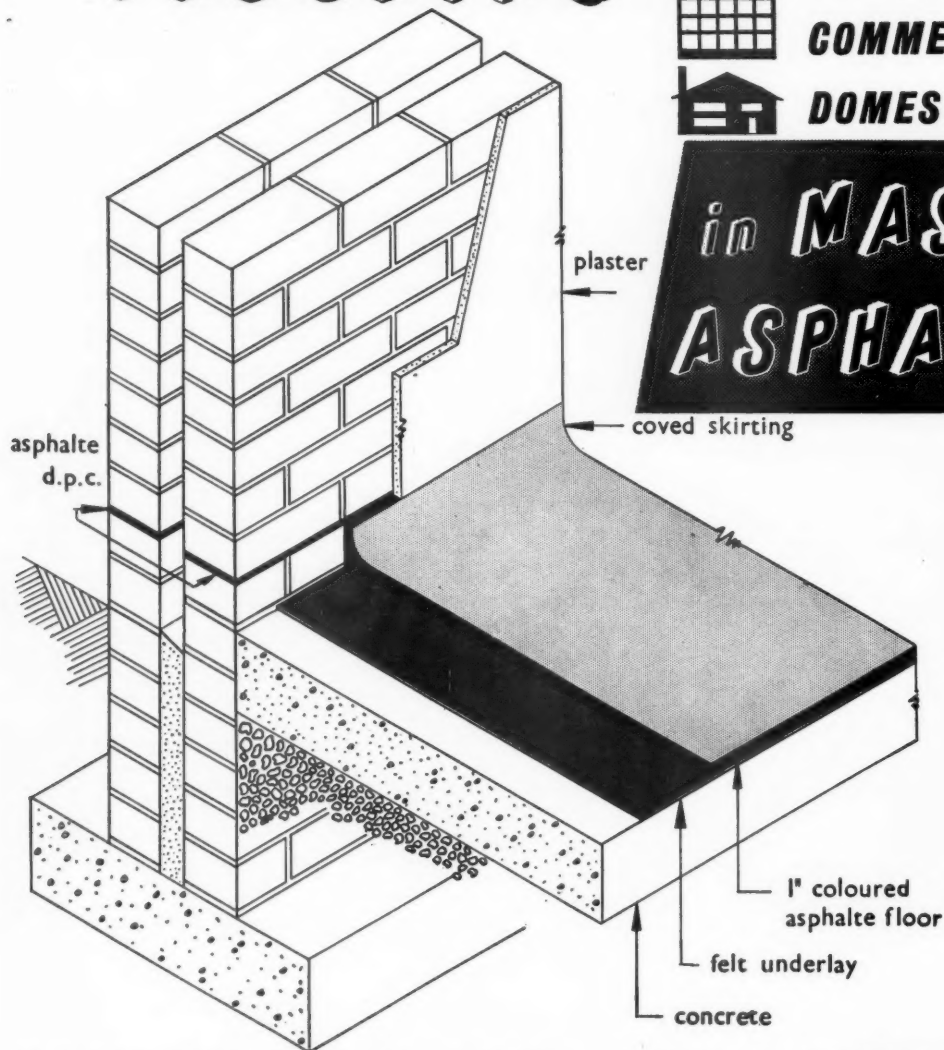
BURGESS PRODUCTS CO. LTD. ACOUSTICAL DIVISION, HINCKLEY, LEICESTERSHIRE

FLOORING



**INDUSTRIAL
COMMERCIAL
DOMESTIC**

in **MASTIC
ASPHALTE**



Mastic asphalte makes one of the finest floorings, apart from being waterproof it is fire-resisting and hygienic. It can be laid in many attractive colours and is easily cleaned. Ensure the best mastic asphalte for flooring by:

(1) specifying British Standards.

B.S. 1410 Mastic Asphalt Flooring—Natural Rock.

B.S. 1076 Mastic Asphalt Flooring—Limestone Aggregate.

B.S. 1451 Coloured Mastic Asphalt Flooring—Limestone Aggregate.

(2) specifying that the asphalte is marked with the B.S.I. kite mark and B.S. number.

(3) ordering from member companies of the Asphalte Council.

A new booklet on the application of mastic asphalte in "FLOORING & PAVING" is now available on application to:

**THE NATURAL ASPHALTE MINE-OWNERS
& MANUFACTURERS COUNCIL**

94-98, Petty France, Westminster, London, S.W.1



TAS/NA.5

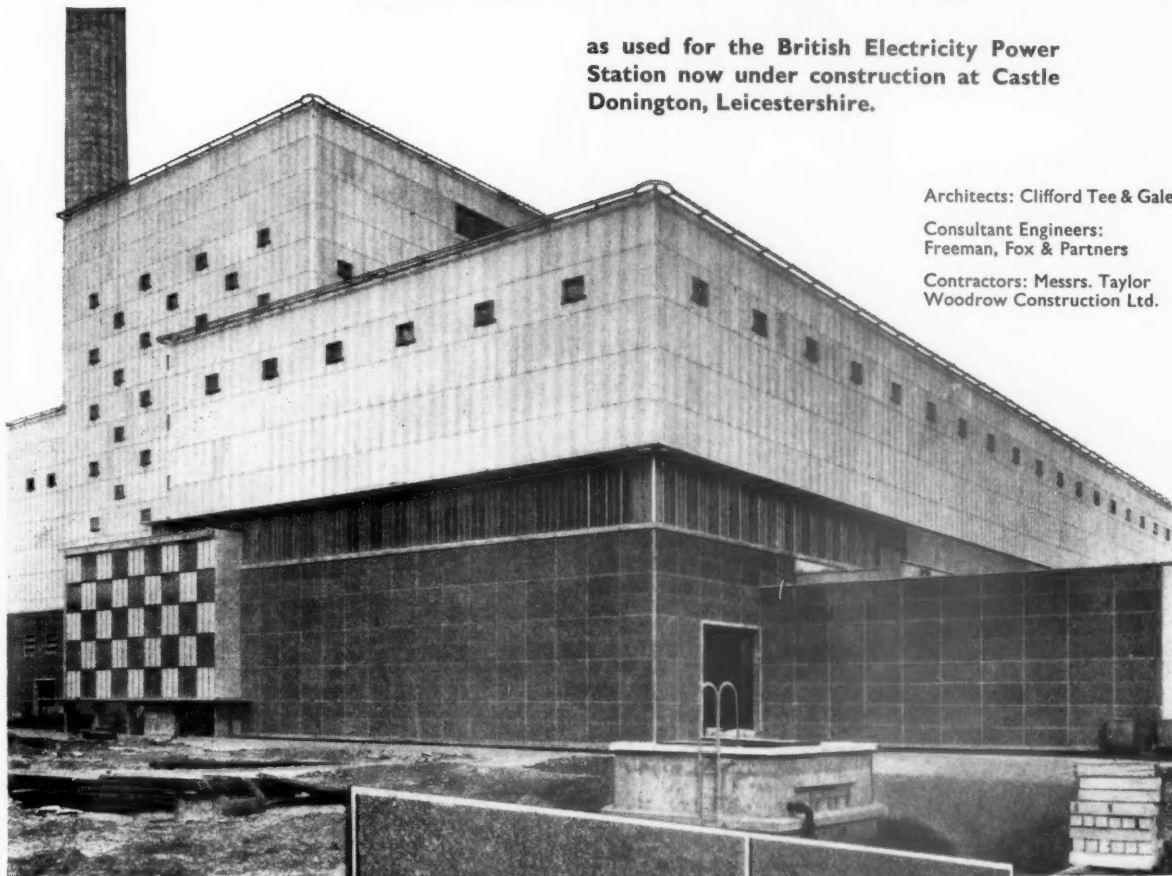
Exposed aggregate cladding slabs

as used for the British Electricity Power Station now under construction at Castle Donington, Leicestershire.

Architects: Clifford Tee & Gale

Consultant Engineers:
Freeman, Fox & Partners

Contractors: Messrs. Taylor
Woodrow Construction Ltd.



OTHER PRODUCTS

Granite Concrete Ellispun Pipes
Granite Concrete Manholes & Gullies
Granite Concrete Hydraulically Pressed
Paving, Kerb and Channel
Reconstructed Stone
Rapid Precast Floor Beams
Stafford Concrete Buildings
Granolithic Paving
Fence Posts and Agricultural Products
Precast Concrete Units of all types
Emalux Glazed Cement Wall Finish
Utilux Glazed Cement Wall Finish
Novalux Egg-Shell Glazed Cement Finish
Decolux Superior Textured Finish
Ellicem Cement Paint



Slabs can be made in a variety of finishes and to a specified size. Information sheets available on request.

JOHN ELLIS & SONS LIMITED

21 NEW WALK, LEICESTER, Telephone: Leicester 56682

London Office: 29 Dorset Square, N.W.1. Tel: AMBassador 1141 & 1142

Birmingham Office: 46 Exchange Buildings, Stephenson Place, Birmingham 2. Tel: Midland 1757





Church heating

The Church of England alone is responsible for some 15,000 churches of varying character and more than 10,000 of them were built before the nineteenth century. There is obviously no one solution to the heating of so many different buildings.

Shall it be continuous or intermittent heating? Will it be radiant or convected heating? However, the Heating Engineer at your Area Gas Board can give expert advice on any space-heating problem from his accumulated knowledge and past experience.

WHATEVER YOUR BUSINESS—The Gas Industry appreciates the needs of individual consumers for prompt service and for advice which accords with the customer's special circumstances and requirements. Each Area Gas Board offers efficient service to users of gas-fired equipment and can give expert advice based upon the pooled knowledge of all the Boards and of gas users in other countries.

—CONSULT YOUR AREA GAS BOARD



ISSUED BY THE GAS COUNCIL

THE GAS INDUSTRY MAKES THE BEST USE OF THE NATION'S COAL

AN **International** SERVICE



to consult International's Advisory Service
on all problems of paints and painting

International Paints Ltd.

Head Office: GROSVENOR GARDENS HOUSE, LONDON, S.W.1
Telephone: TATE GALLERY 7070 (15 lines)



A WORLD-WIDE PAINT ORGANISATION



The requirements of all seeking storage capacity for liquids can be met by the use of Braithwaite Pressed Steel Tanks.

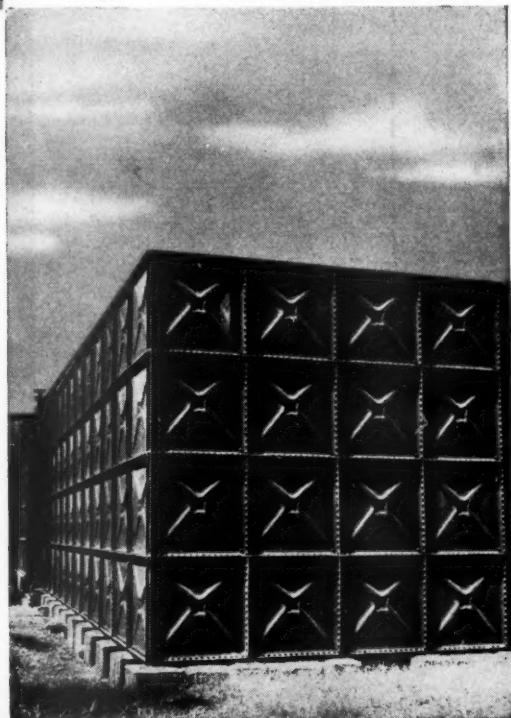
Made up from unit plates the method of construction enables sectional tanks to be constructed with nominal capacities ranging from 220 gallons upwards.

The one million gallon tank illustrated, is enclosed by a weatherproof cover, and has been in service at Nairobi for more than 25 years.

BRAITHWAITE & CO ENGINEERS LIMITED



**BRIDGE & CONSTRUCTIONAL
ENGINEERS**



London Office
**DORLAND HOUSE
REGENT STREET
LONDON SW1**

Telephone: WHItchall 3993

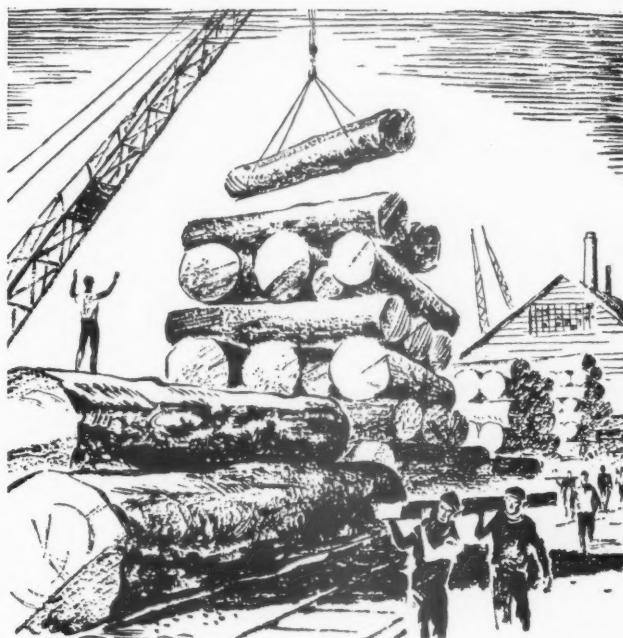
WOOD — that's good

GLIKSTEN HARDWOODS —that's excellent!

Are you making the most of the great
variety of fascinating hardwoods
available today?

That new office building, for instance,
looks so much better equipped with
hardwood floors, and will give you better
service, too.

Wood is your safest and most
versatile raw material. With the ever
increasing scope of industry research
has revealed new and wider uses for wood
in one or other of its various forms,
thus keeping pace with industrial
developments.



Whether your requirements are for hardwoods, softwoods
plywoods, decorative veneers, or flush doors for all
purposes (hardboard, plywood faced or veneered) play
safe and consult Glikstens. You will find in Gliksten
yards such a wide selection of wood that there will be
one to suit your own particular problem. If necessary
Glikstens will help you make the right choice.

GO TO



THE FOREMOST NAME IN TIMBER

J. GLIKSTEN & SON LTD., Carpenters Rd., London, E.15 Tel: AMHurst 3300. Liverpool Office: 87 Lord St., Tel: Central 7576

CRITTALL DOUBLE HUNG SASH WINDOWS

This illustration shows a new office building in King Street, London, S.W.1 (Architects: Trehearne & Norman, Preston & Partners) which is fitted with the new CRITTALL ALUMINIUM DOUBLE HUNG SASH (MARK II) WINDOWS, with "Unique" spring balances.



Of all the many calls upon their services in the manufacture of purpose-made windows, none has a readier welcome at Crittalls than that which poses some new problem in function or design. For it is out of the accumulated experience which comes from tackling such new concepts, that Crittalls will be made more able still to contribute their skills, and in greater measure, to the buildings of the future.

CRITTALL



THE CRITTALL MANUFACTURING CO. LTD • BRAINTREE • ESSEX

Branches and Depots throughout the country.

12/74

flats...maisonettes...shops



11 Storey Flats, Tile Hill, Coventry.
City Architect and Planning Officer: Arthur Ling in succession to Donald Gibson

Photograph by Courtesy of Architectural Review

- for...** ★ Lower heating installation costs
- ★ Virtual elimination of horizontal pipework
- ★ Full automatic control
ensuring outstanding economy in running
- ★ Metered heat and hot water to each dwelling

consult

WEATHERFOIL

HEATING SYSTEMS LIMITED

LONDON

19 BERKELEY STREET, LONDON, W.1
TELEPHONE: GROSVENOR 5146

SLOUGH

REGISTERED OFFICE:
BATH ROAD, SLOUGH, BUCKS.
TELEPHONE: SLOUGH 25561

LEEDS

5 HEATH ROAD, LEEDS, 11
TELEPHONE: LEEDS 77616

COVENTRY

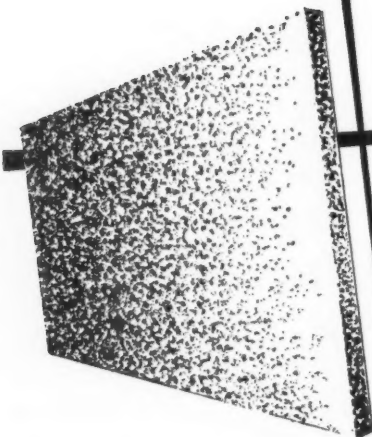
BROADGATE HOUSE
TELEPHONE: COVENTRY 40110

NOW IT'S AVAILABLE



SOVEREIGN HARDBOARD

SOVEREIGN HARDBOARD — latest addition to the famous Sundeala range — is now in quantity production. Special processing of SOVEREIGN Board includes heat treatment to ensure maximum strength, hardness and correct moisture content. When you use hardboard specify SOVEREIGN.



Full particulars and Technical Service from

SUNDEALA BOARD CO. LIMITED

Head Office: ALDWYCH HOUSE, LONDON, W.C.2.

Tel.: CHAncery 8159

or from its offices at Newcastle: NORTHUMBRIA HOUSE, PORTLAND TERRACE, 2

SUNDEALA



A well designed machine printed wallpaper (C. 774) is suggested for this Motel interior. Drawing by David Knight.

A SERVICE FOR ARCHITECTS

The primary purpose of our ARCHITECTS' DEPARTMENT is to give advice on the use of wallpaper, but we welcome enquiries relating to the interior scheme of decoration as a whole. Our products may be seen at the Showrooms in London and Manchester, and if required we can provide a complete specification incorporating wallpaper, paints, furnishing fabrics and floor coverings. The Architects' Showroom in London is reserved exclusively for the use of Architects, Interior Designers and their clients.



THE ARCHITECTS' DEPARTMENT
THE WALL PAPER MANUFACTURERS LIMITED 125 HIGH HOLBORN LONDON WC1
OR KING'S HOUSE KING STREET WEST MANCHESTER 3



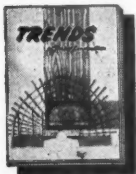
Terrace of Highworth Houses in Hampshire awarded the Ministry of Housing and Local Government Housing Medal and Diploma, 1954.
Designer, Eric Chick ; Consulting Architects, Powell & Moya, F/R.I.B.A.

CANADIAN TIMBER

builds better houses—quicker, at less cost



Brick and timber faced frame houses sponsored by
the Ministry of Works and built by
Spooner's (Hull) Ltd.



SEND FOR 'TRENDS IN TIMBER CONSTRUCTION'
—an 18-page pictorial study of timber's wide range
of uses in present day structures of all types. Write
for your free copy to:

COMMERCIAL COUNSELLOR (Timber)
DEPT. L2, CANADA HOUSE,
TRAFALGAR SQUARE, LONDON SW 1

The architect who makes wide use of Canadian timber in the construction of housing does so with good reason. Timber is warm and hospitable, adds so much to appearance and comfort. It reduces building and maintenance costs to a surprisingly low figure. Wall sections may be prefabricated and wet processes reduced, particularly if timber surfaced to Canadian Lumber Standards is used. Fewer workmen are needed on the site and construction time is cut to the bone. Quite recently, in fact, one Local Authority *proved* that extensive use of timber in terrace houses not only resulted in considerable savings in the cost of materials, but reduced construction time by as much as 23 per cent.

CANADIAN TIMBER FROM BRITISH COLUMBIA

Pacific Coast Hemlock. Douglas Fir. Western Red Cedar. Sitka Spruce.

High quality timber produced by members **BRITISH COLUMBIA LUMBER MANUFACTURERS ASSOCIATION**



*. . there's
no delay*

*when
you
specify..*



**Structural
Steelwork
for
Industrial
buildings**

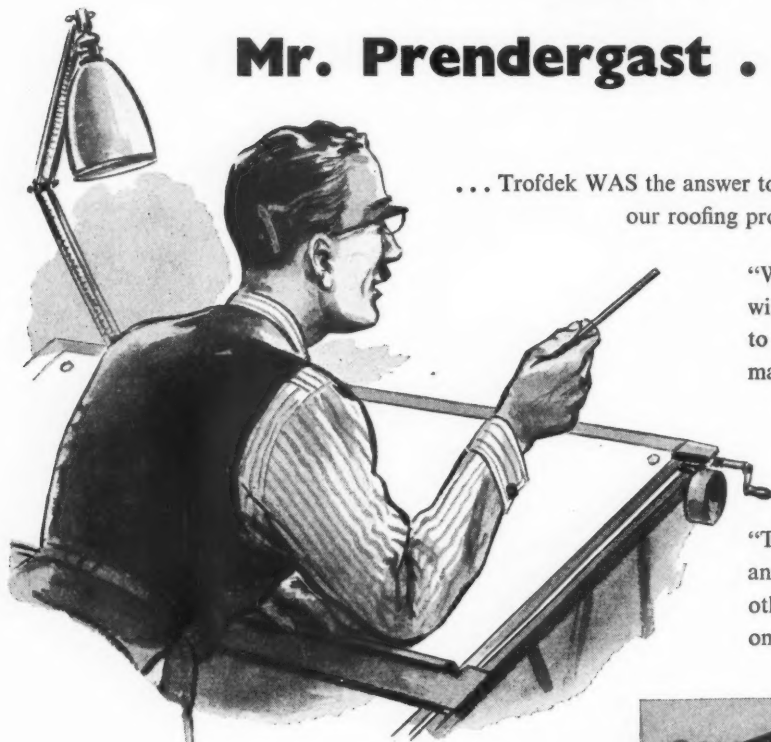
Enquiries invited for all types of medium and light Constructional Steelwork. Our Technical Staff are available at all times for consultation, and promptitude in completion is guaranteed with all contracts



TEASDALE & METCALFE LTD
NORTH STREET WETHERBY YORKSHIRE
Telephone: WETHERBY 40112

"You were quite right,

Mr. Prendergast . . .



... Trofdek WAS the answer to
our roofing problem!"



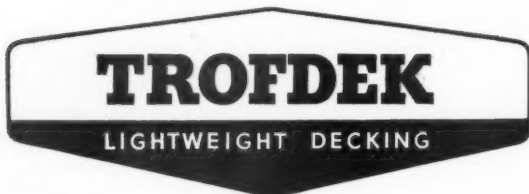
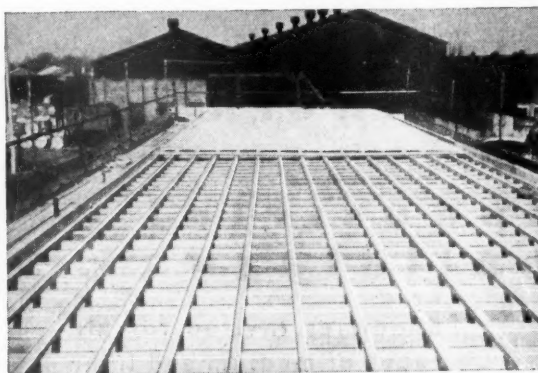
"When you first discussed Trofdek with me, I must say I took your claim to its superiority rather lightly. Yet in many ways it was even better than you claimed."

"Remember that roof where we had a forty foot clear span?"

"Trofdek did that more economically and so very much simpler than any other system; I will certainly use it on a number of other projects."

TROFDEK offers these other advantages . . .

- Ultra light weight—only 3-4 lbs. per sq. ft.
- Greater strength/weight ratio.
- Supporting framework eliminated or reduced.
- Fully prefabricated.
- Minimum fixing time.
- Comprehensive Contracts Service.



T R O F D E K

TROFDEK Manufactured by the makers of
CLADEK timber curtain walling.

WRITE TODAY:—

Sales and Service office: 238 HIGH STREET • LINCOLN • Telephone: LINCOLN 812

H. NEWSUM SONS & CO. LTD. • GAINSBOROUGH • Lincs • Telephone 2391

London office: 28 ST. GEORGE STREET • HANOVER SQUARE • W.1. • Telephone: MAYFAIR 3453

THE UNIVERSAL SOLUTION TO A MODERN PROBLEM —

Insulation

by sandwich construction

sandwich constructions

troughing

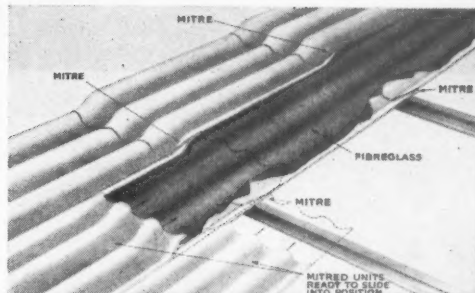
WITH TROFSEC UNDERLINING

Sandwich Construction uses the characteristic advantages of Universal Troughing and Universal Trofsec to their best effect. Highly efficient thermal insulation is achieved by the addition of an interleaving layer of glass wool.

Thermal Insulation value:

Without interleaving: "U" = 0.50 approx.

With interleaving: "U" = 0.16



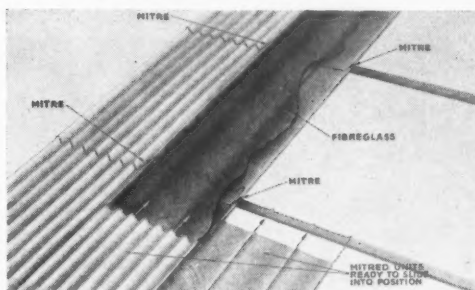
corrugated sheets

The thermal insulation value of corrugated sheets is greatly enhanced by using fibre glass above an underlining sheet which has been specially designed to provide a ceiling.

Thermal Insulation value:

Without interleaving: "U" = 0.64 approx.

With interleaving: "U" = 0.18



watford tiles

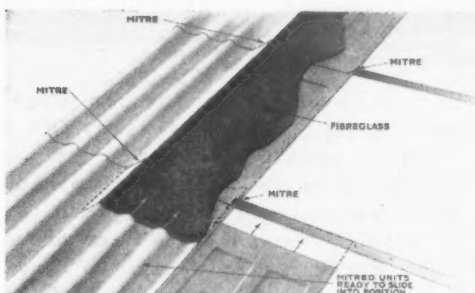
WITH PANELLED UNDERLINING

Universal Watford Tiles are of light weight and high covering capacity. When used with a special panelled underlining sheet and a 1" interleaving layer of glass wool efficient thermal insulation is achieved at very low cost.

Thermal Insulation value:

Without interleaving: "U" = 0.64 approx.

With interleaving: "U" = 0.18



THE UNIVERSAL ASBESTOS MANUFACTURING COMPANY
LIMITED
WATFORD · HERTFORDSHIRE

A member of the  Group of Companies

Even before the word **GO**...



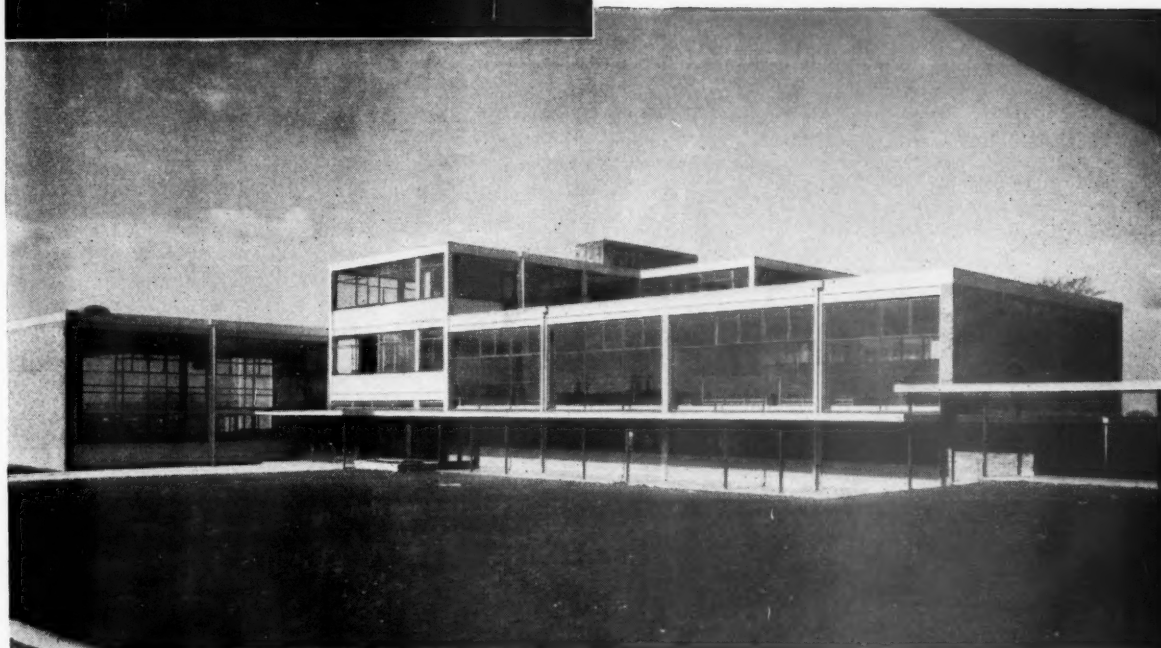
In fact, even before the new project is little more than a developing thought, Hawksley SMD experts are available to offer valuable advice.

For whatever the type of aluminium structure involved, the experience of Hawksley SMD is at the disposal of the architect. Hawksley SMD are proud of the service they can give, right through from design to final completion.

...THAT'S THE JOB OF **HAWKSLEY SMD**

SLOUGH · BUCKS · TELEPHONE 23312 · MEMBER OF THE HAWKER SIDDELEY GROUP

LIMESTONE CONCRETE



Lockleaze School, Bristol. Photograph reproduced by courtesy of Holland & Hannen and Cubitts Limited.

Construction carried out under the supervision of the City Architect of Bristol, J. Nelson Meredith, F.R.I.B.A.

This modern school in Bristol was built with hard limestone as the concrete aggregate. Such concrete has a low shrinkage factor and possesses high compressive and flexural strengths. It has, moreover, excellent fire resisting properties.

LIMESTONE
FOR CONCRETE

THE LIMESTONE FEDERATION · MANFIELD HOUSE · 376/8 STRAND · W.C.2

TGA 16



Littlewoods New Store at Dumbarton.

Designed by: Littlewoods Construction Dept.
Engineers: Bingham & Blades & Partners, Liverpool.
Contractors: A. A. Stuart & Sons Ltd., Carmyle, Glasgow.

Another example of reducing costs and saving time with— **Long Span BISON**

The customer states that our price for this contract makes the complete job cheaper than their standard method of construction using steel columns and beams and short span bison. It also gives entirely clear floor space and materially reduces the time taken for erection.

CONSTRUCTION DETAILS

FLOOR: Thickness of floor beams— $22\frac{1}{2}$ ".
Length of beams—from 49' 7" to 58' 9".
Super Imposed Load—80lbs. per sq. ft.
Finishes—30lbs. per sq. ft. Partitions—15lbs. per sq. ft. Weight—from 3 ton 12 cwt. to

4 ton 15 cwt. 2" concrete screed trowelled to receive thermal plastic tiles.

False ceiling suspended on underside of 1st floor on $\frac{1}{2}$ " dia. bolts in the joints between beams. Soffit of roof left smooth and pointed to receive decoration direct.

ROOF: $11\frac{1}{2}$ " at the ends, $17\frac{1}{2}$ " at the centre.
Length—from 51' $1\frac{1}{2}$ " to 60' 6". Super Imposed Load—15 lbs. per sq. ft.
Finishes—24 lbs. per sq. ft. Weight—from 2 ton 10 cwt. to 2 ton 15 cwt.



CONCRETE LIMITED

BISON floors, beams and precast frame structures

THE LARGEST STRUCTURAL PRECAST CONCRETE MANUFACTURERS IN THE WORLD

LONDON Green Lane, Hounslow, Middlesex. Hounslow 2323

LEEDS Stourton, Leeds, 10. Leeds 75421

LICHFIELD Dovehouse Fields, Lichfield, Staffs. Lichfield 2404

FALKIRK Etna Road, Falkirk. Falkirk 1930

CON 76

**ALL
Hiduminium
Rainwater
Goods**

conform to B.S.S.*



that means you can rely on them
—always. And that you can be sure that they
will fit on to any existing B.S. unit.

Rainwater Goods in Hiduminium are light and
strong; they're easier to transport and fit; they will
not crack even in the coldest weather and,
because they are completely rustproof, cannot stain
surrounding surfaces; they need no painting
and are highly resistant to corrosion.

* Conforming to British Standards Specification 1430/1947.

Hiduminium
makes the most of *Aluminium*

HIGH DUTY ALLOYS LIMITED · SLOUGH · BUCKS

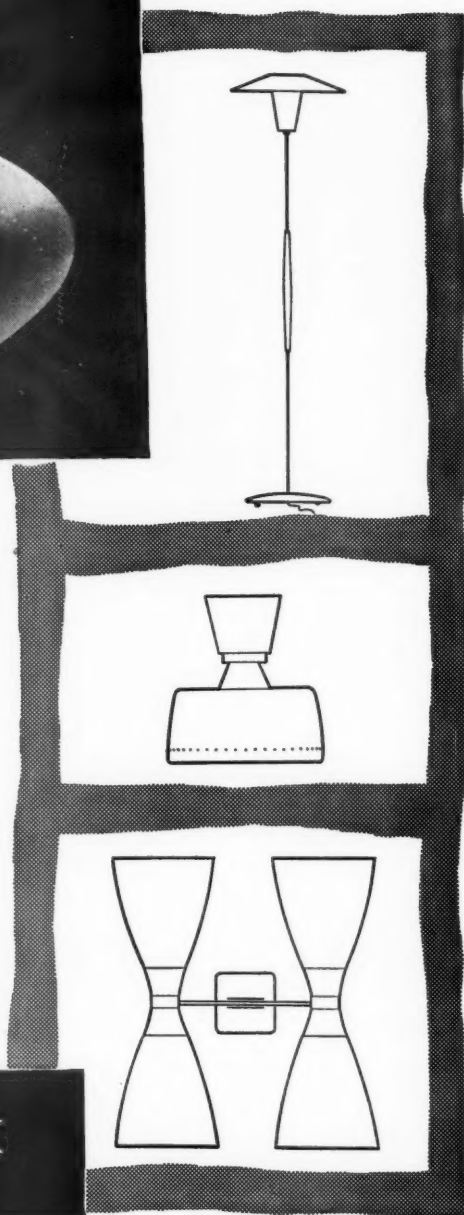


universal lighting

Lighting fittings in the modern manner for almost every interior can be found in the Mondolite series. Utilising a limited number of standard components and materials, a wide variety of Mondolite units can be arranged to provide general, diffused, or directional lighting effects, whether your need is for tubular suspension, ring or radial pendants, recessed, wall, table or standard fitting.

Mondolite is part of a comprehensive range which includes Versalite, for directional lighting, Ultralux for general lighting, and Tubalux for fluorescent lighting—all to be seen at THE LIGHTING CENTRE.

» **MONDOLITE** «

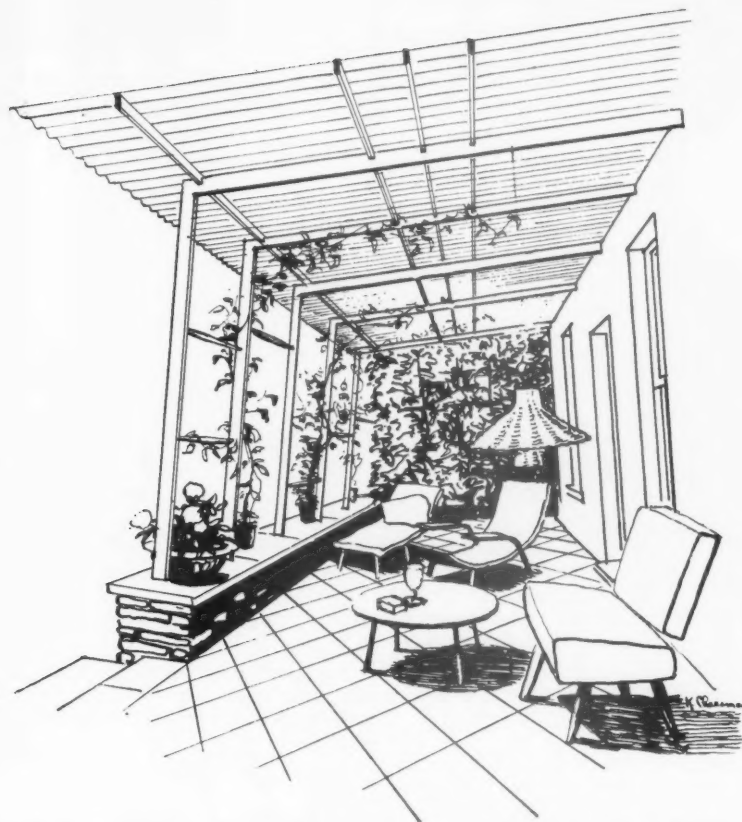


A range of lighting fittings by:—

TROUGHTON & YOUNG

TROUGHTON & YOUNG (Lighting) LTD., *The Lighting Centre*, 143 Knightsbridge, London, S.W.1. 'Phone KENsington 3444. And at 46 Rodney Street, Liverpool 1

that's
a
light
idea



"UNDULITE"*, the translucent building material, cuts costs because it's lighter

A fresh-air annexe to the living room is a luxury idea—but "UNDULITE" cuts the cost to a practical level! "UNDULITE" is a translucent corrugated plastic sheeting, reinforced with fibreglass. It's so light and easy to handle that man-hours are cut to a minimum and the simplest framework gives adequate support.

"UNDULITE" and a little imagination will provide an effective answer to hundreds of building problems. It's tremendously strong, rigid, durable and shatterproof. Use it for roofing, skylights, wall lights, panels and partitions. Use it to let the daylight into farm buildings, factories, shops and office buildings.

light, strong and easy to handle—

"UNDULITE"
made by **Ashdowns**

"UNDULITE" is made in standard sized sheets to nest with standard pitches of other materials, and it can be cut, sawn, drilled, clipped or even nailed with ordinary tools to suit your particular requirements. For further details, please write for a copy of our illustrated folder. *Delivery of standard profiles ex. stock. Send for free samples now. Before use it is advisable to consult your local bye-laws.*

ASHDOWNS LIMITED, ECCLESTON WORKS, ST. HELENS, LANCS. TELEPHONE: ST. HELENS 3206
LONDON OFFICE: 29/30 ST. JAMES'S STREET, LONDON, S.W.1. TELEPHONE: WHITEHALL 6002

*Registered Trade Mark

Ashdowns Limited subsidiary of Pilkington Brothers Limited
RIB. 1.



Staff Toilet

Architect D. J. Langton, Dipl. Arch., A.R.I.B.A.
General Contractor Messrs. J. B. Edwards & Co.
(Whyteleafe) Limited, Kenley, Surrey.
Wall & Floor Tiling Specialists
R. A. Davison & Co. Limited, Liverpool.



Shower in Male Treatment Room

That I.C.I. should choose Ceramic Tiles in their Medical Block at Runcorn, is convincing proof that here is a surface which provides hygiene and cleanliness, so essential to medical services.

Impervious to acids, moisture, dirt, germs or grease, the lasting quality of Ceramic Tiles ensures minimum maintenance costs.



CHOOSE CERAMIC TILES



Male Treatment Room

Ceramic

T

I

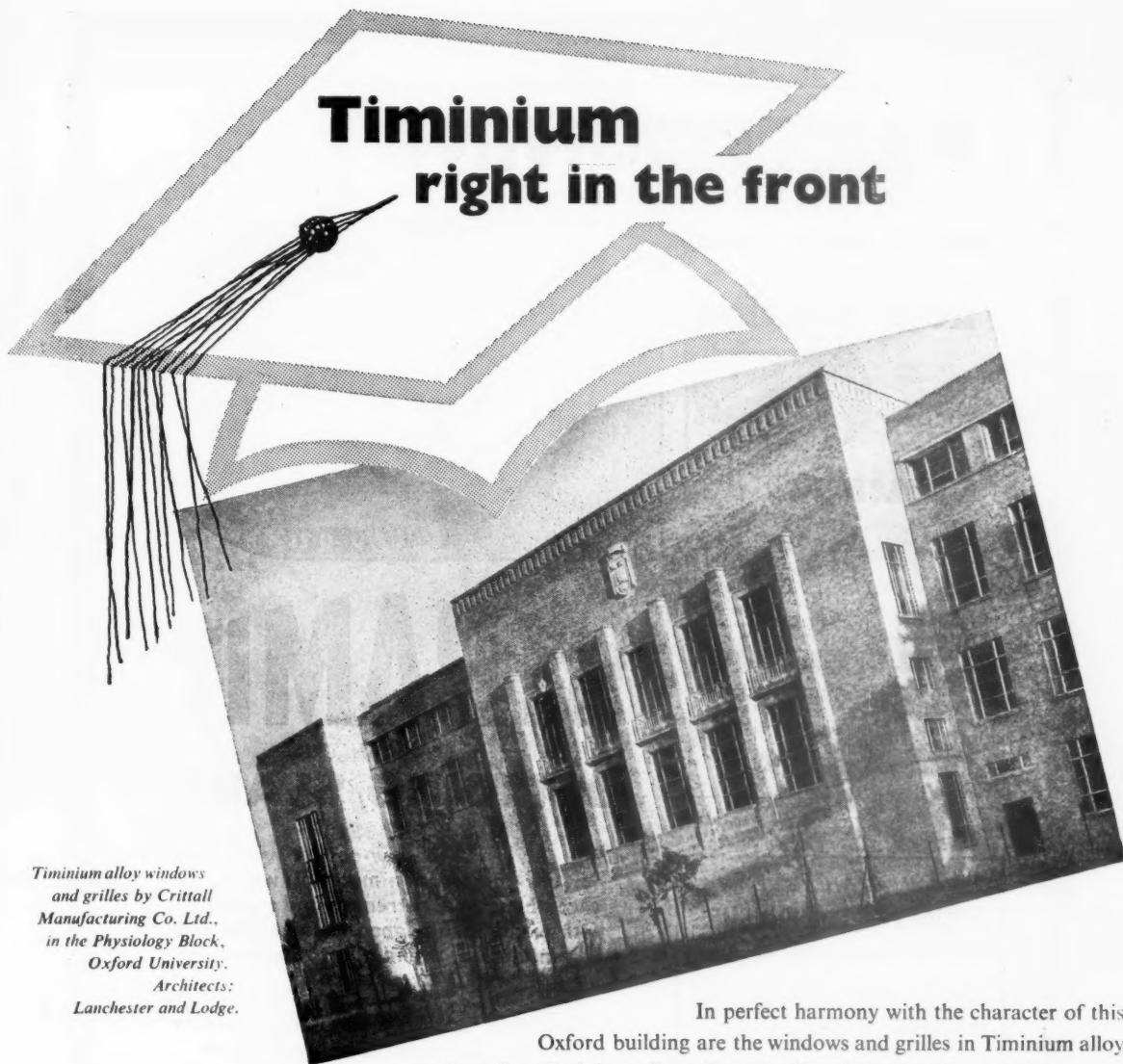
L

E

S

Glazed & Floor Tile Manufacturers' Association · Federation House · Stoke-on-Trent

Timinium right in the front



*Timinium alloy windows
and grilles by Crittall
Manufacturing Co. Ltd.,
in the Physiology Block,
Oxford University.
Architects:
Lanchester and Lodge.*

In perfect harmony with the character of this Oxford building are the windows and grilles in Timinium alloy sections. But Timinium alloys do more than decorate. Because they cannot warp or rust and are so resistant to atmospheric corrosion, they save substantially on upkeep costs: they need no protective painting and next to no maintenance. Their excellent weathering, long life and attractive appearance commend them in an increasing number of applications to progressively-minded architects—and economy-minded clients.

The Development Department of T I Aluminium Ltd., offers an advisory service covering all aspects of aluminium usage. Architects and builders are freely invited to make use of it.

T I Aluminium Ltd

ONE OF THE LARGEST U.K. MANUFACTURERS OF SHEET, CORRUGATED SHEET, STRIP, CIRCLES, PLATE, EXTRUDED SECTIONS AND TUBES IN THE TIMINIUM RANGE OF ALUMINIUM AND ALUMINIUM ALLOYS.

Head Office: Redfern Road, Tyseley, Birmingham 11. Tel. Acocks Green 4211

Offices in: LONDON · BIRMINGHAM · MANCHESTER · LEEDS · GLASGOW · BRISTOL · BELFAST AND DUBLIN

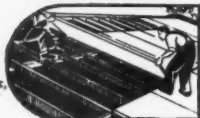
A  COMPANY

PARTITIONING

Glazed or unglazed; permanent or temporary

ROOF-DECKING

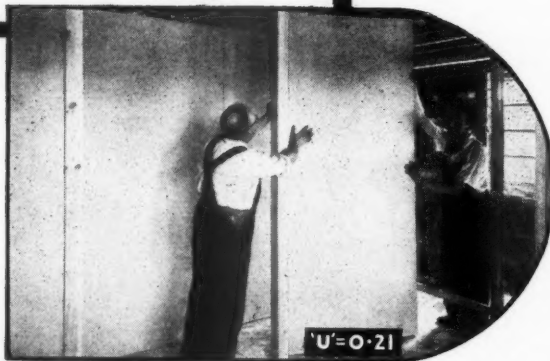
Under
Sheet-metal
(Traditional
or Patent),
Asbestos,
Bituminous Felt,
etc.



CEILINGS



WALL-LININGS



STRAMIT

—THE TWO-INCH THICK
BUILDING SLABS

—the low-cost
dry-construction material, which
combines great strength and rigidity
with exceptionally good values of thermal
insulation, sound absorption and
fire resistance

*
THOUSANDS OF TONS ARE USED ANNUALLY
IN THE CONSTRUCTION OF FACTORIES,
HOSPITALS, SCHOOLS, OFFICES, FLATS AND
HOUSES, THROUGHOUT THE COUNTRY

*
STOCK SIZES :
4 ft. wide x 8, 9, 10 & 12 ft. long

SPECIAL SIZES (made to order):
Any width, of 4 ft. or less, and any length, greater or less than 12 ft.

**NOW AVAILABLE IN
3 QUALITIES AND 3 FINISHES**
—supplied through leading merchants



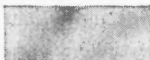
STANDARD quality



HARDBOARD faced



ROOFING quality



ALUMINIUM faced



LOW-DENSITY quality



FABRIC faced

For latest details
technical data & B.R.S. Reports
**FILL IN COUPON
AND POST NOW**

Please send details of NEW range of STRAMIT Building Slabs:

Name of firm.....

Address.....

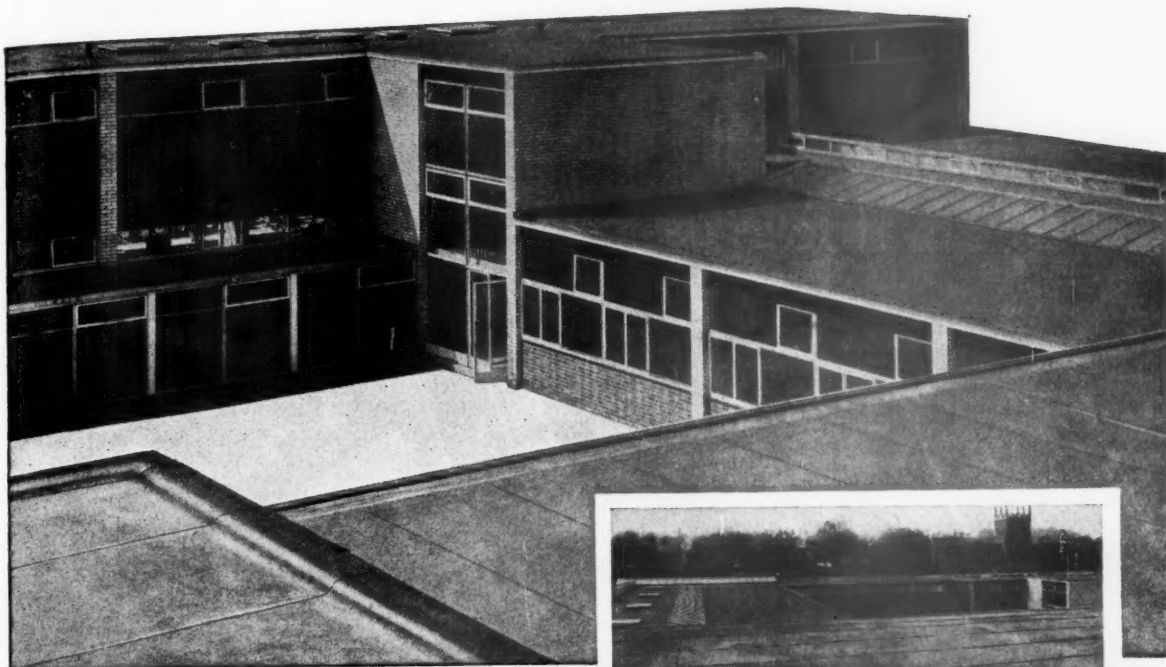
For the attention of..... Status.....

STRAMIT BOARDS LTD. COWLEY PEACHEY, UXBRIDGE, MIDDLESEX
Phone: West Drayton 3021

R.I.B.A.

THE LONDON COUNTY COUNCIL'S NEW SECONDARY SCHOOL IN FULHAM

ARCHITECT: RICHARD SHEPPARD & PARTNERS
MAIN CONTRACTOR: GEE WALKER & SLATER LTD.



5,300 SQ. YARDS
GLASS FIBRE BASE

NACOFELT ROOFING

IN THREE LAYERS WITH MINERAL SURFACE

CRAFTSMAN-LAID BY

NEUCHATEL

Glass fibre is chemically inert, completely waterproof, and access of moisture to the felt layers by 'wicking' is impossible. Roofings based on fibre glass felts do not suffer from subsequent blistering or buckling. Consultation invited on any Felt Roofing problem.

THE NEUCHATEL ASPHALTE COMPANY LTD

Neuchatel House, Palace St., London, S.W.1

Telephone No. of Contracting Departments:
RENowN 1321

BRANCHES:

Belfast . Birmingham . Cardiff . Edinburgh
Frome . Glasgow . Leeds . Liverpool
Manchester . Newcastle . Offham (Kent)
Plymouth . Portsmouth

Specialists for 80 years in Asphalt:
Roofing, Tanking, Flooring and Roads.
Approved Laying Contractors for Accotile
Flooring.





WEB OF CIRCUMSTANCE

Even though it may never occur emergency must be provided for. Adequate protection and precautions against fire are matters of conscience and civic duty in which profit has no willing part.

But fire's other face—the warmth with which we heat our buildings—is different. To conserve fuel profitably by providing effective thermal insulation is a worthy motive that helps the national economy — and rewards the company or individual property owners with reduced overheads and increased comfort.

When your advice is asked bear in mind that fire protection in a building can be turned to a profitable advantage in the first winter by using Gypsum insulating plasterboard as an internal lining.

In addition to giving proved protection from the spread of fire it will assist in keeping fuel consumption at a minimum level.

There is no better or more inexpensive method of ensuring two such worthwhile ends.

GYPSUM Insulating Plasterboard is BRITISH and . . .

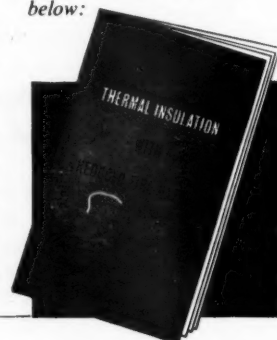
RESISTS FLAME . . . CONSERVES FUEL



THE GYPSUM BUILDING PRODUCTS ASSOCIATION

★FACTS

are given in this brochure and we shall be pleased to send you a copy. Please write to address below:



G.P.O. BOX 321, LONDON, W.1
633



*'But, soft!
what light through
yonder window breaks?'*

—ROMEO & JULIET

Interior of the Wardrobe Store at The Shakespeare Memorial Theatre, Stratford-upon-Avon, showing curved 'Perspex' Corrugated Sheet roof lighting. The excellent daylight in this building makes very good colour matching of costumes possible.

At The Shakespeare Memorial Theatre

STRATFORD-UPON-AVON

Corrugated 'Perspex' plays its part

CORRUGATED 'PERSPEX' acrylic sheet is unequalled as a roofing material in all buildings where toughness, durability and high light transmission are important. Corrugated 'Perspex' will stand up to weather conditions in any part of the world. It represents a considerable saving over conventional materials.

Corrugated 'Perspex' is light, easy to handle, and inexpensive to install. If diffused daylight is desired, Opal Corrugated 'Perspex' is available. Originally developed for intense light conditions overseas, Opal Corrugated 'Perspex' diffuses daylight evenly and efficiently.



The roof of the Wardrobe Store seen from above.



It's as clear as daylight—it must be

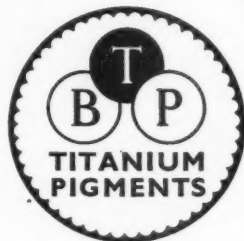
CORRUGATED 'PERSPEX'

'Perspex' is the registered trade mark for the acrylic sheet manufactured by I.C.I.

IMPERIAL CHEMICAL INDUSTRIES LIMITED • LONDON • S.W.1

C.P. 112/1





The finest WHITE pigments

ARE IN ALL GOOD PAINTS

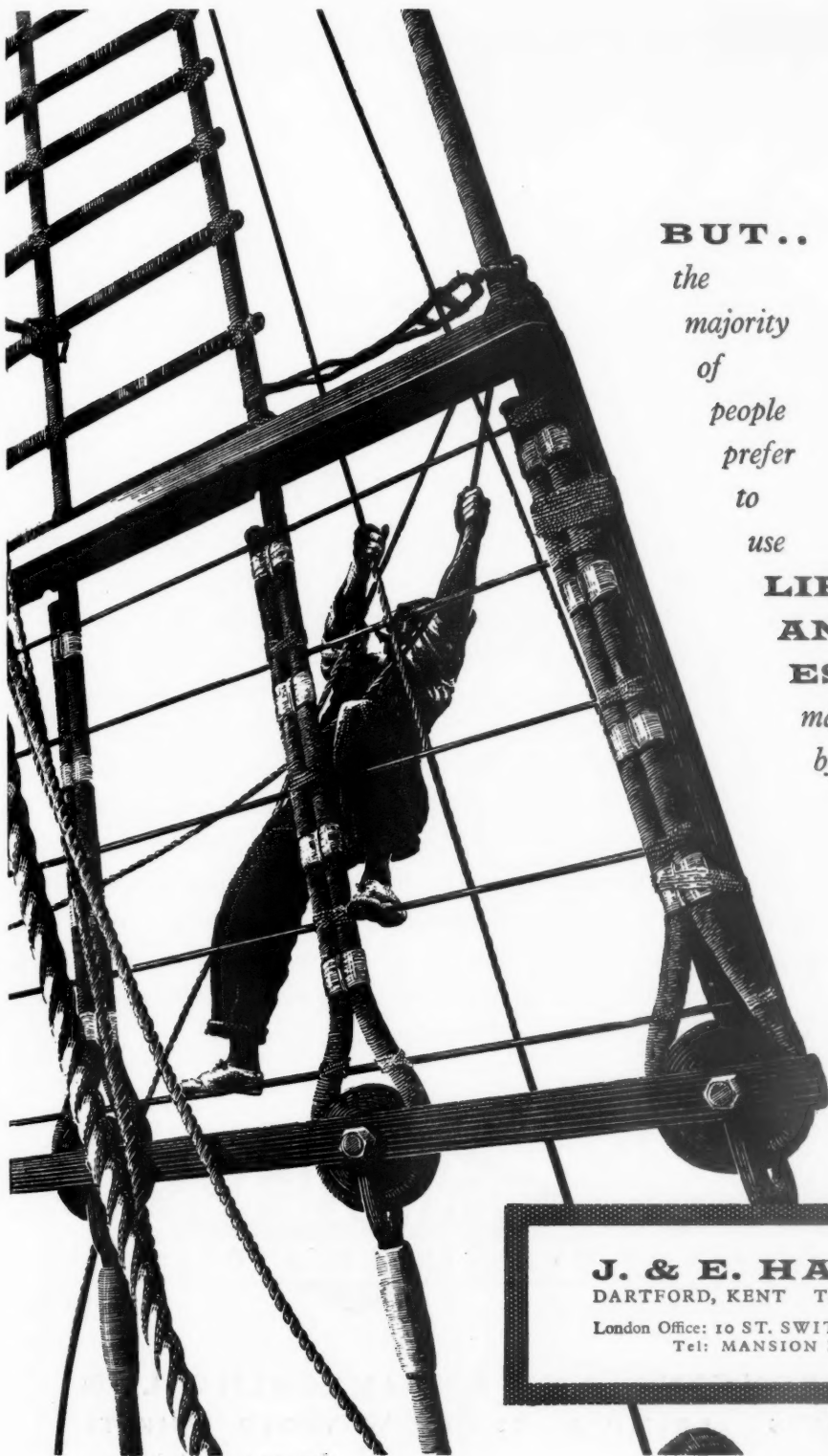
*because they give—brightest whites
cleanest pastel shades
greatest covering power
longest life with
complete protection
and they are—completely non-toxic*



are made in Britain by
British Titan Products Company Limited
the largest Titanium Oxide manufacturer
outside the United States

*Factories at Grimsby and Billingham and at Burnie, Tasmania
Agents in most principal countries*

**BRITISH TITAN PRODUCTS
COMPANY LIMITED**
COPPERGATE
YORK



BUT..

*the
majority
of
people
prefer
to
use*

**LIFTS
AND
ESCALATORS**
*manufactured
by..*

J. & E. HALL Ltd.

DARTFORD, KENT Tel: DARTFORD 3456

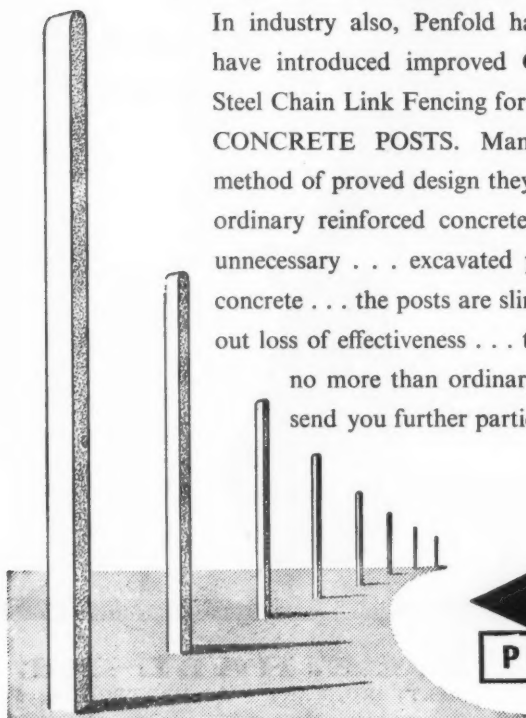
London Office: 10 ST. SWITHIN'S LANE, E.C.4

Tel: MANSION HOUSE 9811



INSIDE INFORMATION

By his discovery of the X-ray, Professor Röntgen took much of the guess-work out of modern surgery. Röntgen rays have also become of inestimable value in industry and a great debt is owed to this famous pioneer. In industry also, Penfold have proved their worth as pioneers. They have introduced improved Galvanised Chain Link Fencing, Stainless Steel Chain Link Fencing for 'difficult' areas and now—PRE-STRESSED CONCRETE POSTS. Manufactured by an exclusive Scandinavian method of proved design they possess a strength several times that of the ordinary reinforced concrete post. In consequence straining struts are unnecessary . . . excavated post holes can be smaller and require less concrete . . . the posts are slimmer and present a neater appearance without loss of effectiveness . . . their life is well-nigh unlimited. The cost?—no more than ordinary reinforced concrete posts! We will gladly send you further particulars on request.

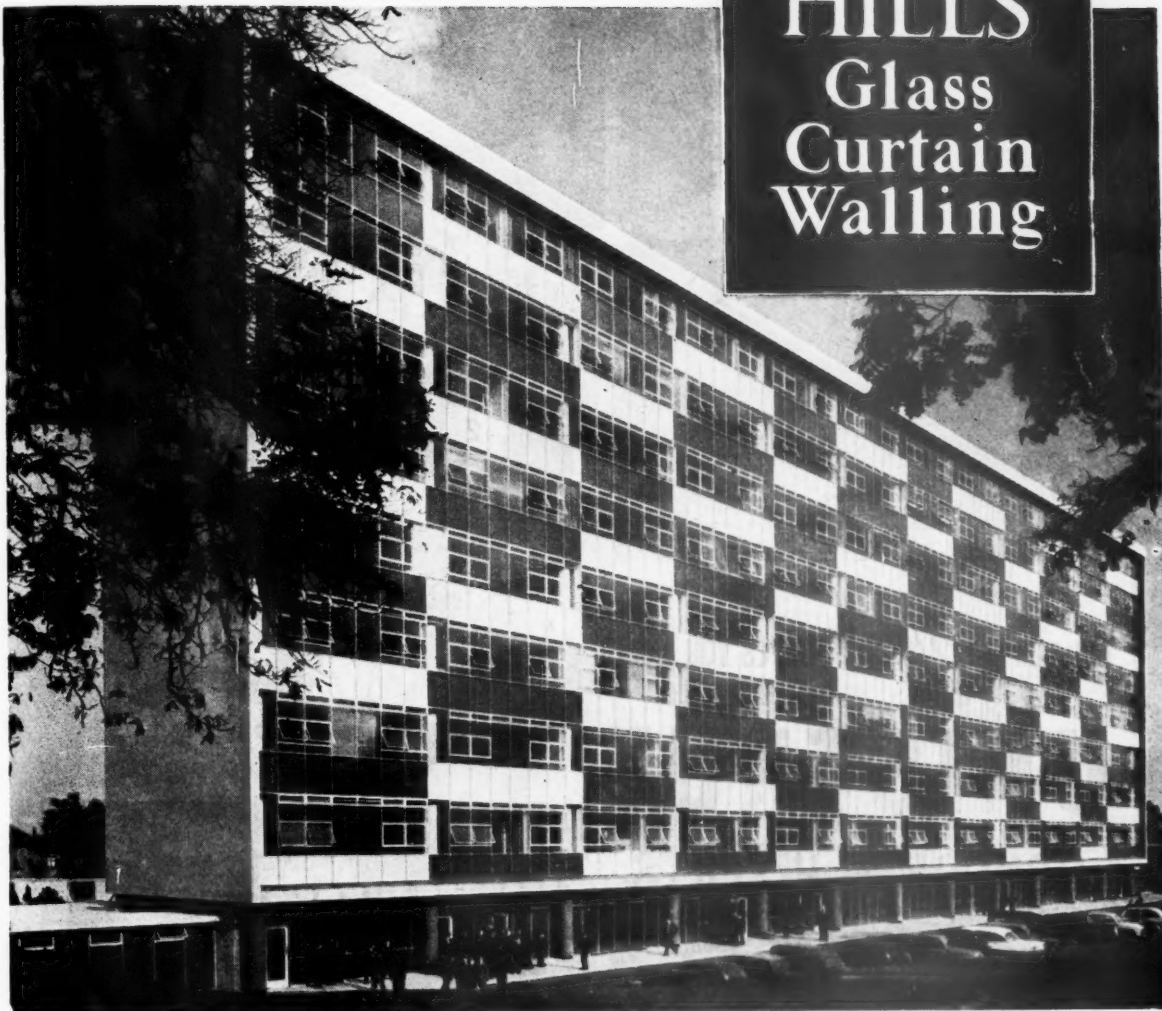


PENFOLD FENCING AND ENGINEERING LTD
IMPERIAL WORKS BALMORAL ROAD WATFORD HERTS

Telephone: Watford 2241

Telegram: "Penfold, Watford".

HILLS Glass Curtain Walling



ILLUSTRATED is one of the many contracts completed in 1956 where Hills Glass Curtain Walling has been used. Developed for buildings designed on co-ordinated modular construction, this most economical permanent cladding can be used with any type of framed buildings of any height as well as in conjunction with Presweld Construction. Over 1,000,000 ft. super of Hills Glass Curtain Walling have now been supplied and erected. Architects and Contractors are invited to write for illustrated literature.

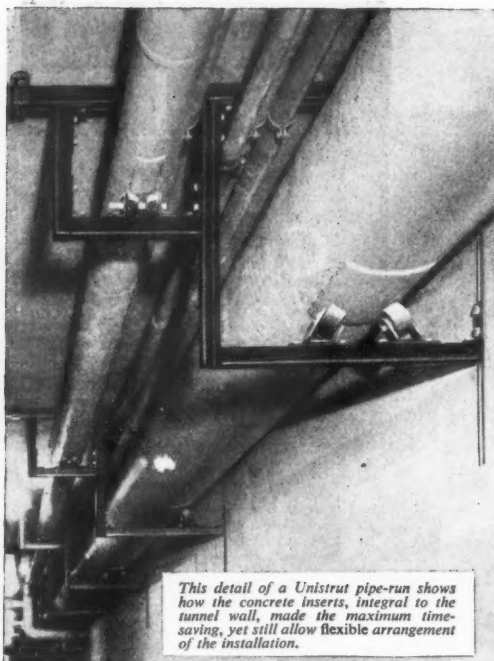
LONDON: CHAPONE PLACE, DEAN STREET, W.1. Telephone: GERrard 0526/9
Branches at Birmingham (Midland 5175); Manchester (Blackfriars 3382/3); Bristol (24765);

*Tulsa Hill School. Architect to the L.C.C.
Dr. J. L. Martin, M.A., Ph.D., F.R.I.B.A.*

HILLS (WEST BROMWICH) LIMITED

ALBION ROAD, WEST BROMWICH, STAFFS
Telephone: West Bromwich 1811 (15 lines)

Newcastle-on-Tyne (25060); Glasgow (City 5564); Belfast (26112)



This detail of a Unistrut pipe-run shows how the concrete inserts, integral to the tunnel wall, made the maximum time-saving, yet still allow flexible arrangement of the installation.

BUILT-IN *FLEXIBILITY* SAVES YOU MORE!

UNISTRUT CONCRETE INSERTS

*Placed when the concrete is poured
accept fixtures at any point*

Unistrut Concrete Inserts have many special advantages—practical as well as economical. Available in runs up to 20ft, they form an integral part of the building structure, yet allow the same infinitely variable insertion of fittings as the basic Unistrut system. They drastically reduce the amount of detail drawing required for a given installation, and give greater convenience—as well as reducing cost—when alterations or extensions are to be made.

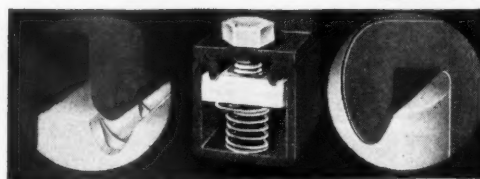
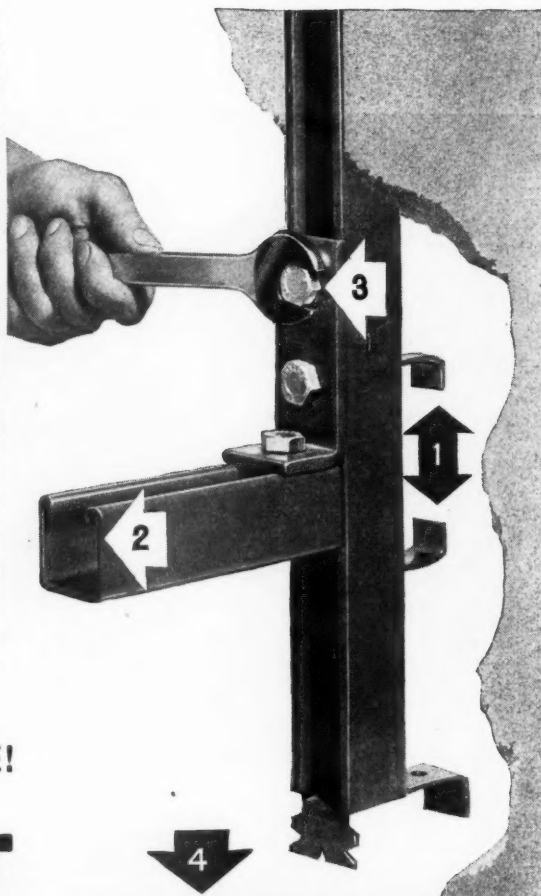
Unistrut, developed in the United States to cut onsite costs, is a simple system of strong steel channelling, with a rapid self-locating nut and bolt assembly, which carries a vast range of fittings—for pipe, cable and conduit runs; storage racking; electrical fitting (including fluorescent trunking).

It will pay you to know about Unistrut *before* you plan that new project. May we send you details?



UNI 7089

Please write to:
UNISTRUT division of Sankey-Sheldon Ltd., Dept. I.R.A.12
46 Cannon St., London, E.C.4. Telephone: City 4477
Telegrams: SANKESHEL, CANNON-LONDON.



BUILT-IN UNISTRUT SYSTEM

1. CONCRETE INSERT, SOLIDLY ANCHORED.
2. BOX-SECTION STRENGTH.
3. CONTINUOUS ENTRY FOR FITTINGS.
4. SELF-LOCATING NUT ASSEMBLY.
5. COMPREHENSIVE RANGE OF FITTINGS.

Unistrut channel (including concrete inserts) is formed in cold-rolled 12 or 16 gauge steel. A self-locating nut, placed *anywhere* along the channel, remains in place while the bolt is inserted—one hand is always free. Ser-rated grooves in the nut "bite" home on the channel lip. This tough, positive assembly secures maximum speed and strength, yet allows infinitely variable adjustment.

51



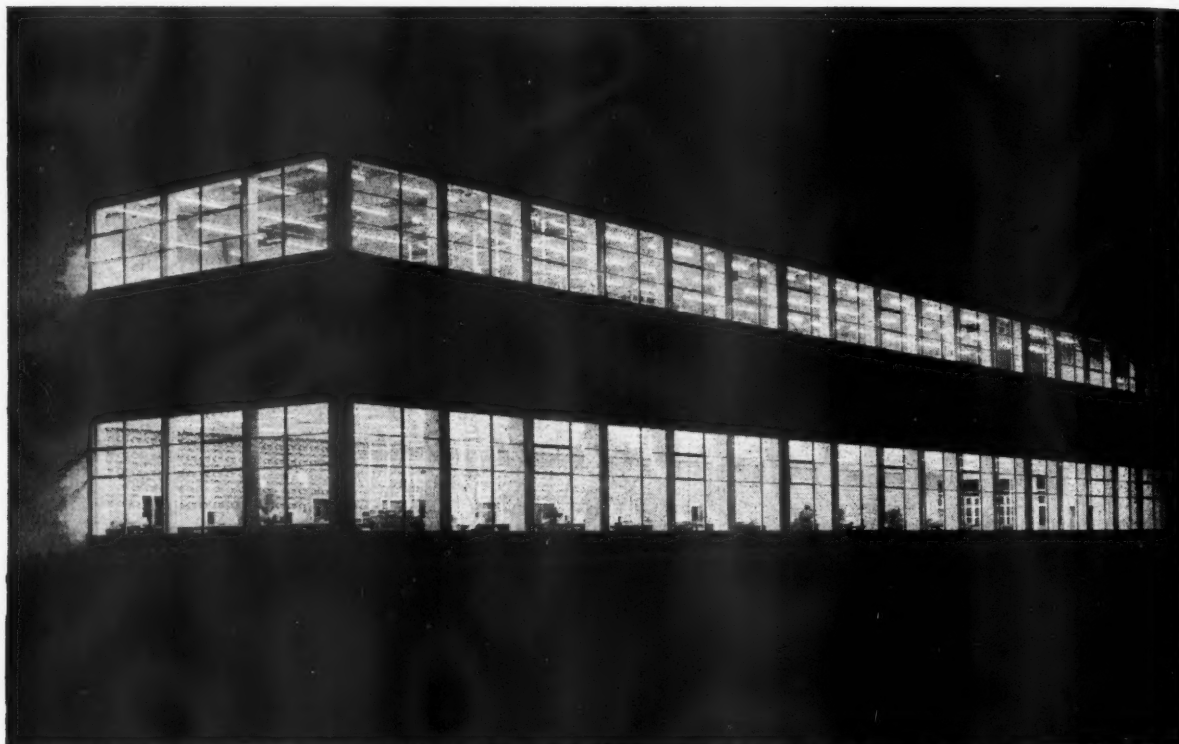
Let us sing the praises . . .

of CARLITE pre-mixed plaster

A song of plaster progress, of a plastering revolution! Gypsum and Perlite, factory-mixed, saving weight and saving lathing, giving better insulation, greater fire and crack resistance, easier estimates and planning, tidy sites and far less storage. Five thousand years of sanded plasters—now Carlite strikes a clear new note! Write for technical details.



*The Gotham Company Limited, Gotham, Nottingham.
The Carlisle Plaster & Cement Co., Cocklakes, Nr. Carlisle.
Thomas McGhie & Sons Ltd., Kirkby Thore, Westmorland.*



Architects: Messrs. Edward D. Mills & Partners, F./A./A.R.I.B.A.

Main Contractors: Holland & Hannen and Cubitts Ltd.

New Laboratories for William R. Warner & Co. Ltd., Eastleigh, Hants

The design and installation of the heating, air conditioning, mechanical and electrical services at the new laboratories and offices of William R. Warner & Co. Ltd., were carried out by Engineering Service Installations Ltd. Production commenced twelve months from the date work started on the site.

ESI

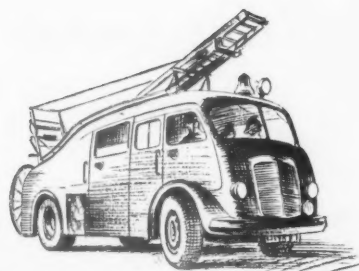
ENGINEERING SERVICE INSTALLATIONS LTD

258 GRAY'S INN ROAD, LONDON, W.C.1. Telephone: TERminus 3388 · ENGLAND · SCOTLAND · OVERSEAS

SPECIALIST CONTRACTORS FOR ELECTRICAL, HEATING, VENTILATING AND SANITARY ENGINEERING

TGA E528

TERRINGTON FIRE STATION



The County Architect specified 'PUDLO' Brand waterproofer to be used in the construction of the Terrington Fire Station. To prevent rising dampness the oversite concrete was composed 1.2.4. 4" to 6" thick with the addition of 4 lbs. of 'PUDLO' Brand waterproofer to each 100 lbs. of cement, and a layer of 1½" of granolithic to form the finished floor surface. 'PUDLO' Brand Powder was also used to the same specification in the concrete for the construction of the Inspection Pit.

C. H. THURSTON, ESQ., L.R.I.B.A.,
F.R.I.C.S., COUNTY ARCHITECT,
NORFOLK.
BUILDER: W. H. WAGG, TILNEY ALL
SAINTS.



CEMENT WATERPROOFER

Stocked by most Builders' Merchants.

The most reliable fire cement is 'FEUSOL'. Have you tried it?



The word 'PUDLO' is the registered Trade Brand of Kerner-Greenwood & Co. Ltd., by whom all articles bearing that Brand are manufactured. Sole Proprietors & Manufacturers:

KERNER-GREENWOOD & CO LTD • KING'S LYNN • NORFOLK

CHISLEHURST GRAMMAR SCHOOL FOR BOYS

SIDCUP



Architect: Howard V. Lobb, C.B.E., F.R.I.B.A.

Building Contractors: Rush & Tomkins

SPECIFICATION INCLUDES

4,229 SQ. YDS. OF FLOOR TILES AND

6,554 YDS. OF SKIRTING BY MARLEY

The Marley Tile Company Ltd., Sevenoaks, Kent. Sevenoaks S5255



EX4

New
Knigh
Secre
C.B.E.
Chief
H. W
Corp
ing S
O.B.
Regio
B. F
Direc
straw
Corp
Offic
M.B.
for t

The
Mr.
the p
perm
(Clas
of Ir
TI
Com
the
Lon
Kin
inter
any

Cov
Wil
littl
coll
T
on
Joh
Ass
and
Ro
I
syn

JAN



THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

66 PORTLAND PLACE LONDON W1

Telephone: LANGHAM 5721-7
Telegrams: RIBAZO WESDO LONDON

JANUARY 1957 THIRD SERIES VOL. 64 NUMBER 3 TWO SHILLINGS AND SIXPENCE

EDITORIAL

New Year Honours List

Knight Bachelor. Herbert J. G. Griffin, C.B.E. [*Hon.A.*], Secretary, C.P.R.E.

C.B.E. Bernard Ashmole, M.C. [*Hon.A.*]. P. K. B. Reynolds, Chief Inspector of Ancient Monuments, Ministry of Works. H. W. Wells, Chairman Hemel Hempstead Development Corporation. C. G. Garratt Holden, T.D., Secretary Building Societies Association.

O.B.E. C. T. Bloodworth [*A.*], Principal Architect, N.W. Region, Ministry of Housing and Local Government. B. Frankland Dark [*F.*]. S. R. Driver [*A.*], Assistant Regional Director (Works), Leeds Ministry of Works. G. A. Goldstraw [*A.*], Chief Architect, Newton Aycliffe Development Corporation. C. O. Tremeer [*A.*], Senior Architect, War Office. F. X. Velarde [*F.*].

M.B.E. F. W. Beazley, Clerk to the National Joint Council for the Building Industry.

The Order of Al Rafidain

Mr. Raymond Andrews, M.B.E. [*A.*], has been informed by the private secretary to H.M. the Queen that he has restricted permission to wear the insignia of the Order of Al Rafidain (Class IV Military) which was conferred on him by the King of Iraq during his state visit to this country last year.

The Order was conferred on Mr. Andrews as Guard Commander of the royal guard mounted at the Guildhall by the Royal Marines Forces Volunteer Reserve (City of London) on the occasion of the State Luncheon given for King Feisal by the Lord Mayor of London. He would be interested to know if any other members have the award in any degree.

Cover Picture

William Richard Lethaby was born on 18 January 1857. The little ink sketch reproduced on the cover is among the collection of his watercolours in the R.I.B.A. Library.

To mark the centenary two lectures have so far been given: on 'Professor Lethaby and his Influence on the Arts' by Mr. John Brandon-Jones [*A.*], Vice-President of the Architectural Association, at the Victoria and Albert Museum on 9 January, and 'The Life and Work of W. R. Lethaby' by Mr. A. R. N. Roberts at the Royal Society of Arts on 16 January.

It is hoped that it will be possible to publish a short symposium on Lethaby in a future issue of the JOURNAL.

The New President of the Royal Academy

Mr. Charles Wheeler who has succeeded Sir Albert Richardson [*F.*] as P.R.A. is also President of the Society of Portrait Sculptors. In 1949 he was awarded the Gold Medal of the Royal Society of British Sculptors.

Among the commissions he has carried out for architects has been work for the late Sir Herbert Baker at Winchester College, the Bank of England, India House and South Africa House. Works executed for Sir Edward Maufe, R.A. [*F.*] include stone eagles for St. John's College, Cambridge, gate piers, figures and reliefs on each of the Royal Naval Memorials at Chatham, Portsmouth and Plymouth and of the Merchant Navy Memorial, Tower Hill. For Sir Hubert Worthington, Mr. Wheeler was responsible for the sculpture on several North African memorials including those at Tobruk and Malta.

Architectural Control under the Town and Country Planning Act 1947

On 1 May 1956 Council approved an interim report prepared by a Joint Committee consisting of representatives of the Public Relations Committee, the Town and Country Planning and Housing Committee and the Salaried and Official Architects Committee on the working of the Town and Country Planning Act 1947 in regard to the operation of aesthetic controls.

The report was published in the JOURNAL and some of the architectural papers in a very abbreviated form and made recommendations the terms of which gave rise to misunderstanding. Following upon representations by the Institution of Civil Engineers, the Institution of Municipal Engineers and the Royal Institution of Chartered Surveyors these bodies together with the Town Planning Institute accepted an invitation from the Royal Institute to attend a meeting to discuss the position.

This meeting was held on 17 October under the Chairmanship of the President R.I.B.A. and a report of the meeting was submitted to Council on 6 November.

The Council have requested the Joint Committee to give further consideration to the whole matter with a view to producing a fully considered statement of policy which it is intended to discuss with the other bodies represented at the meeting before publication.

A.R.C.U.K. and Advertising

Principle III of the Code of Conduct provides that an architect must not advertise.

The Professional Purposes Committee of the Architects Registration Council during the past six months have carefully examined various questions relating to the interpretation of this rule, and guidance required by an architect on any particular point can be obtained on application to the Registrar.

Appointment of Legal Officer on Headquarters Staff

The Council have accepted with regret the resignation of Mr. D. R. Perrey who is leaving to take up an appointment as solicitor to Messrs. John Mowlem & Co. Ltd.

In succession to Mr. Perrey, the Council have appointed Mr. Walter Parkes, M.A., LL.B., at present serving in the Legal Department of the National Coal Board.

Mr. Parkes is aged 38. He was educated at Highgate School, where he was a foundation scholar, and at Clare College, Cambridge, to which he won an open scholarship in classics. He graduated with honours in the Classical Tripos, Part I, and the Law Tripos, Part II. His course at the University was interrupted by the war, during which he served with the South Wales Borderers, later being commissioned into the Royal Hampshire Regiment and seeing active service in Italy and Greece. After qualifying as a solicitor in 1949 he served first in the Legal Departments of the St. Marylebone and Kensington Borough Councils and lately in the headquarters of the National Coal Board.

Subject to arrangement with the National Coal Board, Mr. Parkes will be joining the R.I.B.A. staff at the beginning of February.

Architects' Benevolent Society Ball

Over eleven hundred people attended the annual ball at Grosvenor House on 12 December, among them the Rt. Hon. Patrick Buchan-Hepburn, Minister of Works. The theme of 'Archimation', so cleverly hit off by 'Acanthus' at the outset, was a success, judging by the advertisement pages in the menu.

The students' contributions were in every way enlivening both on the backcloths and on the floor where a group gave 'rock 'n' roll' exhibitions to Sydney Lipton's orchestra.

Praise is due to all those who helped both beforehand and on the night, particularly to Mr. C. J. Epril, Chairman of the Ball Committee; Mrs. A. Wolfe, the Honorary Organising Secretary; to Mr. Eric Ambrose, assisted by Miss Marilyn Epril, for the menu; to Miss Sybil Gray, who organised the side show arrangements; and to Mr. John Kemp who ran the 'racing'—the riders being automatons armed with T square and set-square, riding on motor scooters.

The A.B.S. Old People's Homes Fund will benefit as a result by about £2,800.

Index to Practice Notes

An index to Practice Notes published in the JOURNAL from January to December 1956 has now been prepared and copies may be obtained free of charge on application to the Secretary R.I.B.A.

Royal Gold Medal

Her Majesty the Queen, on the recommendation of the R.I.B.A., has awarded the Royal Gold Medal for Architecture for 1957 to the distinguished Finnish Architect Alvar Aalto (Hon. Corresponding Member).

Council Matters

At the meeting of the Council held on 11 December, the President in the chair, arrangements were approved for the holding of the R.I.B.A. Dinner at the Dorchester Hotel on 27 February. The price of tickets, exclusive of wines, etc., was fixed at 35s. each.

After a discussion in which the point of view of the Allied Societies was vigorously put by a number of speakers, it was agreed that the rebate payable to Allied Societies for 1957 under the provisions of Bye-law 73 should remain at one-third, but that this figure would have to be reviewed subsequently in the light of full examination of the Institute's finances to be carried out during the year.

In a letter published in THE TIMES of 13 December last an appeal over a number of distinguished names was launched for a fund in memory of the late Michael Ventris [A]. The Council agreed to support the appeal. The fund would be administered by a trust by means of grants to chosen students working in the two fields that were Ventris' main interest, Mycenaean civilisation and architecture. (See page 111.)

The Public Relations Committee had proposed that at some convenient date an exhibition of classical Chinese architecture should be held. It was suggested that, considering their historical importance and aesthetic value, the architecture and town planning of China have been comparatively neglected in the past and that an exhibition on the lines the committee had in mind would be of considerable interest and perhaps even a revelation. The Council gave approval to the Public Relations Committee's recommendation that the possibilities of arranging such an exhibition should be examined.

During the past few weeks the R.I.B.A. has been approached by the various organisations engaged in the resettlement of Hungarian refugees in this country and has been assisting in finding accommodation and employment for refugee architects and architectural students. The Council agreed that the Royal Institute should do as much as possible to help these organisations by acting in the capacity of a 'clearing house' for the resettlement of these refugee architects and students.

Temporary accommodation over the Christmas period was found for some of them, but the twofold problem remains of finding them permanent accommodation and of obtaining employment for the qualified architects and settling the students at schools of architecture. The most urgent and pressing problem is to find employment for the qualified architect refugees. Once these refugees draw salaries, they will be able to support themselves independently.

The Council request as a matter of urgency that anyone who can offer board and lodging for a short or longer period should write to the Secretary R.I.B.A., giving particulars of the accommodation, its whereabouts and the dates available. The greatest need is, naturally, in London.

More important still in view of the urgent need for paid

employment, employers who would be prepared to take an assistant are asked to write to the Secretary R.I.B.A., stating the approximate standard of the assistant who could be taken, the address of the office and the salary offered. It should be noted that the normal rates of remuneration must be offered in accordance with the requirements of the Ministry of Labour and National Service.¹

When the Council met the subject of petrol was an inflammatory one.

Immediately following the announcement of the introduction of petrol rationing, the Institute made inquiries from the Ministry of Fuel and Power about the position of architects, especially those outside urban areas and those with scattered practices. It transpired that while individual consideration was promised, the limit of any concession would be the 'business' category, or 300 miles per month inclusive of the basic ration.

The Council discussed the severe handicap imposed upon practising architects and the effect that restricted mobility might have on the building industry as a whole in regard to the transport of works materials, etc., and also in interference with the professional direction of jobs. It was decided to ask the Minister of Works to arrange for urgent consideration of the problem. The Minister invited representatives to meet him and this meeting was attended by Mr. E. D. Jefferiss Mathews, the Secretary and Deputy Secretary in company with representatives of the Royal Institution of Chartered Surveyors.

The Minister expressed his sympathy and understanding of the difficulties of the profession and the building industry as a whole, but made it very clear that the overall situation was so critical that the Government would find the utmost difficulty in alleviating the hardship of any one section of the country without imposing additional hardship on another section. He had decided to set up a special committee under the chairmanship of Sir Eric Seal, K.B.E., C.B., Deputy Secretary, Ministry of Works, on which representatives of all the interests, professional and industrial, in the building industry would be represented with a view to setting out a considered statement on the difficulties for the consideration of H.M. Government.

In the meantime he asked the professions for assurances that on their side they would do everything possible to limit any unnecessary use of petrol and to extract the full advantage from any motor transport being used. In this connection, the Council ask members at all times to bear in mind the possibility of co-ordinating visits to sites, not only with their quantity surveyors, contractors, etc., but also, where practicable, with neighbouring architects who may have visits to make in the same direction.

The Council next considered the implications of offers of free technical services made by contracting firms in connection with the preparation of layouts and the provision of bills of quantities for site and external works, roads, sewers, etc., where such firms were offering numbers of standard type buildings. It was pointed out that the cost of such professional services must necessarily form part of the overall cost of the project and would also be without any safeguard of independent advice as would be secured by the

¹ Donations of drawing instruments would be welcome. They should be sent to the Secretary R.I.B.A. See also p. 117.

client from his private architect, or the official architect in the case of a local authority client.

It was agreed that these observations should be sent to the local authorities' associations and that the Allied Societies in the United Kingdom should be asked to report to the Institute any cases of such offers which might come to their notice.

The next item on the agenda concerned the economic situation and the position of the building industry. Fact-gathering must necessarily precede representations.

It was agreed that members of Council should report confidentially on the trends of activity in the building industry in their areas as indicated by the level of work in their offices. It was thought that this might help to formulate a picture of the present trend in the building industry which would serve as a guide to the Minister of Works through the National Consultative Council. The effects of the credit squeeze and the recent change in the economic situation might thus be more accurately assessed.

The next point to be dealt with was on the familiar subject of architectural representation on committees where the Council has to act as watchdog for the profession.

It was reported that the Secretary of State for Air had set up a committee to review the organisation of the Directorate-General of Works at the Air Ministry. It was noted that the Directorate-General were responsible for a very large volume of building work and it was observed with regret that no provision had been made in the constitution of the committee for the experience of the architectural profession to be available. It was agreed to make representations to the Air Ministry suggesting that the advice of an architect serving on the committee would be of advantage in considering many of the organisational problems connected with building and site planning.

Lastly the Council had to weigh the risk of letting a treasured possession out of its keeping against the value of its presence on the other side of the Atlantic. It was reported that a festival was to be held in Jamestown, Virginia, in 1957 to commemorate the 350th anniversary of the British landing on the James River. The organising committee of the festival had asked for the loan of the interleaved heirloom copy of Wren's *Parentalia* in the possession of the R.I.B.A. Assurances had been given that every safeguard would be provided during transit and exhibition and the United Kingdom Government had asked for co-operation. The loan was agreed.

This concluded the Council's business for 1956.

R.I.B.A. Diary

MONDAY 28 JANUARY. 6 p.m. Library Group. *Drawings in the Uffizi after Ancient Roman Buildings*—Dr. Arnold Noach.

TUESDAY 5 FEBRUARY. 6 p.m. General Meeting. President's Address to Students. Criticism by Sir Hugh Casson of work submitted for Prizes and Studentships. Presentation of Prizes.

TUESDAY 12 FEBRUARY. 6 p.m. Symposium on Drawing Office Technique.

TUESDAY 19 FEBRUARY. 6 p.m. General Meeting. *Architecture and William Morris*—Dr. Nikolaus Pevsner.

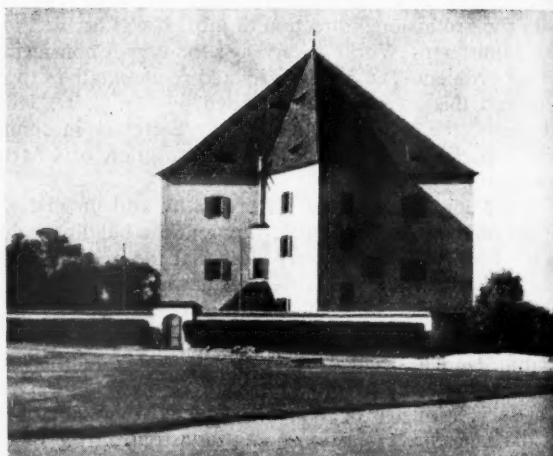
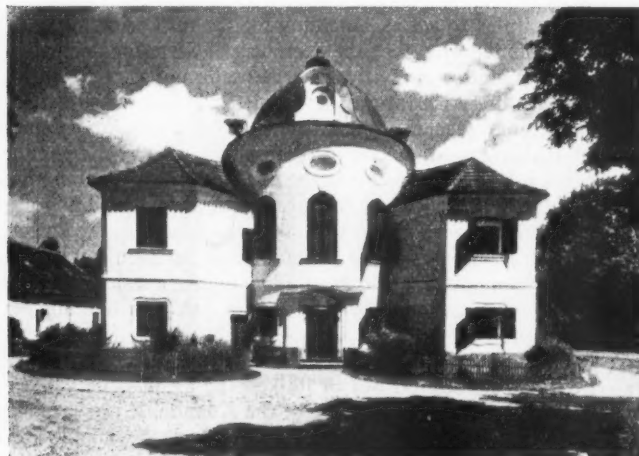
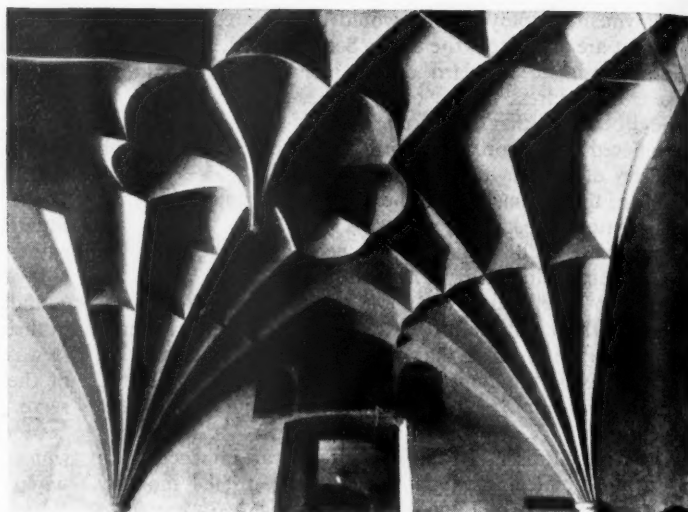
THURSDAY 21 FEBRUARY—SATURDAY 23 MARCH. Exhibition of French Architecture in the Henry Florence Hall. Mon.—Fri. 10 a.m. to 7 p.m., Sat. 10 a.m. to 5 p.m.

Architectural Treasures of Czechoslovakia Exhibition

Opened by H.E. the Ambassador of the Czechoslovak Republic at the R.I.B.A. 13 December 1956

The President, Kenneth M. B. Cross, in the Chair

Right: Cellar vault, house in Slavonice
Below left: Karlov Hunting Lodge
Below right: The Royal Summer Pavilion, Hvezda, Prague



THE PRESIDENT: We are greatly honoured by having with us this afternoon His Excellency the Ambassador of Czechoslovakia, who has very kindly consented to come here in spite of his busy life to open this exhibition. I have myself had an opportunity of having a preview of these photographs and I can assure you that you are going to enjoy it very much indeed. It is an exhibition of absorbing interest and illustrates the progress of Czechoslovakian architecture from the Slavonic beginnings at the end of the romanesque period to the eighteenth-century baroque and rococo work which most of us know fairly well. Whereas Dresden just over the border suffered severely during the war, Prague has not suffered nearly as much and still remains the beautiful city that it always was.

I now have great pleasure in asking the Ambassador of the Czechoslovak Republic to declare the exhibition open.

H.E. The Ambassador of the Czechoslovak Republic, Mr. Jiri Hajek: May I first of all thank you, Mr. President, and the R.I.B.A.

for the very kind invitation you have extended to me, the privilege you have given me, of opening this exhibition. May I furthermore thank you and the R.I.B.A. for having organised this exhibition and for transmitting in such a way these pictures to the view of the British public. It consists, as you mentioned, of a number of pictures, of historical significance, of Czech and Slovak building art. I hope they may give you an opportunity of seeing the development not only of Czech and Slovak building art and crafts, but also of the technical skill and imagination and the aesthetic sense and feeling of the Czech and Slovak people throughout the centuries. They may enable the student of architecture to see how far the great spirit, the force, of the Czechoslovak people has accepted certain incentives and stimuli from the great trends of world art, and how far they developed their own forms of expression and how far they adapted different foreign influences and styles into their own expressions and forms.

I should like to stress two more features which I think may be observed in these

pictures. These monuments are monuments of the development of Czech architecture but they are at the same time living witnesses of the history of the Czechoslovak people as a whole: its most dramatic moments, its most important events are written in its walls and carved in those stones, and those monuments and those buildings at the same time are very deeply rooted and fully integrated in the present life of our people. They are a source of imagination to our poets and artists. They are a very important factor in the artistic and historic education of our children. They are loved by all our people.

They are being taken care of by the authorities, and put into the service of the people in the best sense of the word. The fact that the people so love them and are so proud of them is the reason that they appear so often on the postcards which our people write to send their good wishes to their friends. I hope these pictures will be accepted by the British public as a collective expression of greeting and goodwill from the Czech and Slovak people.



Above left: Dobra Voda Pilgrimage Church near Nove Hradky

Above right: The Pilgrimage Church in Pocatky
Right: The church of the Brevnov Monastery near Prague.

R. E. Enthoven [F]: I am very glad to have this exhibition here. We can look upon it not only as a greeting but almost as a Christmas card, in view of the close link of Czechoslovakia with Good King Wenceslas.

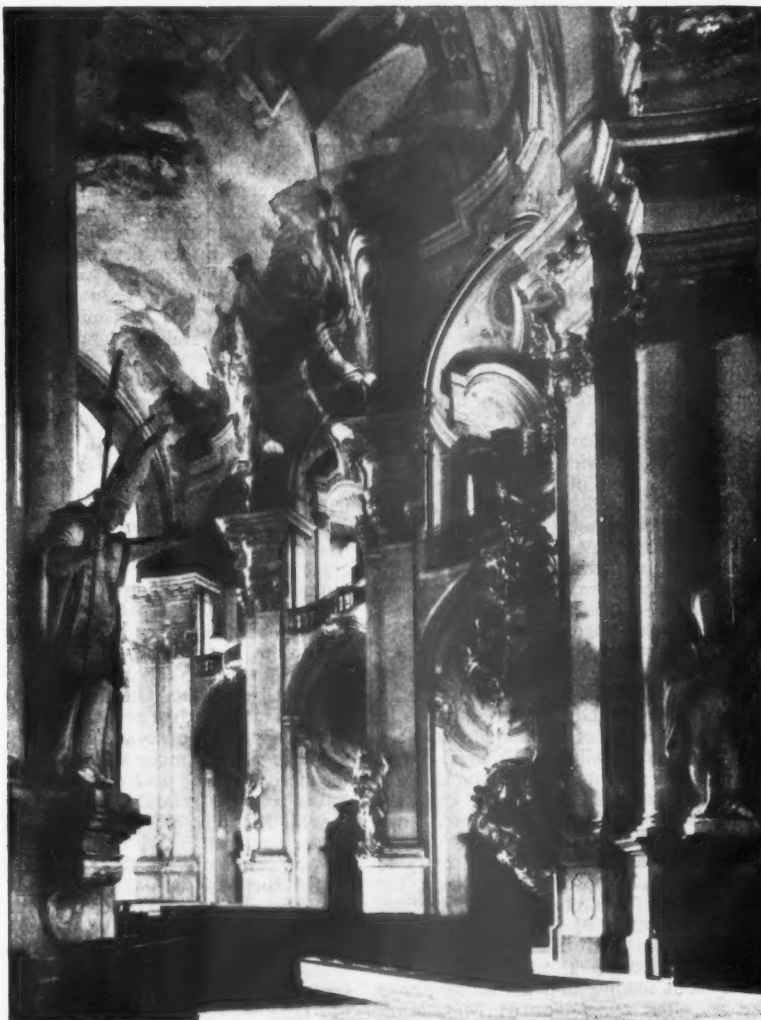
I did myself know the country long ago, when one travelled round it with a Baedeker labelled 'Austria-Hungary'. But it is now many years since I crossed the Charles bridge in Prague. The buildings made a very vivid impression on me, which today has been reinforced by this exhibition. It is very interesting to see how, as the Ambassador said, the foreign styles have been absorbed and to note the different trends between the Czech and the Slovak sides.

Looking back at the historical events of Europe during the last five or six hundred years, it seems to me astonishing that so many buildings, of such elegance and beauty, ever have been built despite the wars, the invasions, the upheavals and damage. Czechoslovakia has been fortunate.

Repair, restoration and maintenance is a very interesting problem which all countries face. The responsibility for it rests in some countries—for instance, I believe, in Italy—with the Ministry of Education. Here the matter comes under another Ministry—perhaps there is a moral there.

We are very grateful indeed to the Ambassador for coming to open this exhibition.

Among the guests present at the opening were H.E. the Ambassador of the U.S.S.R., Mr. Malik and Mme. Malik; H.E. the Ambassador of Yugoslavia, Mr. Vejvoda; H.E. the Indonesian Ambassador, Dr. Sunario and Mme. Sunario; Mr. Huan Hsiang, Chargé d'Affaires, the People's Republic of China; and a representative of the High Commissioner for India.





The Motor Vehicle and Civic Design

By Professor Henry Myles Wright, M.A. (Cantab.) [F]

of the Department of Civic Design, Liverpool School of Architecture, Liverpool University

Read before the R.I.B.A. 11 December 1956. The President in the Chair

THE TITLE of this paper is not quite a correct description of its contents. It should have been called 'the motor vehicle's probable influence on future town planning and building development'.

Starting from the assumption that motor vehicles will become much more numerous than they now are, it tries to show that they will influence both the location and form of new building development much more radically than most official plans assume. It is also held that we can foresee a good deal about the influences that will tend to resist them, and the detailed forms of layout and new building which far more numerous motor vehicles will tend to bring into existence.

In short I shall tonight try to describe a coming battle. But for this to be worth while we must agree that there is going to be a battle, and I hope that agreement will reach as far as that—despite Suez. When vehicles on the roads have been increasing at round about half a million a year, have doubled in numbers since before the war and will probably double again within 10 or 12 years—in these circumstances we can hardly say the motor vehicle problem has crept up on us. Yet the all-round convenience of the motor vehicle for those who can manage to use one still seems to be doubted, to the extent of pooh-poohing any big efforts to provide for its more convenient use. And of course the present difficulties over oil from the Near East provide a useful, though surely temporary, additional argument for those who deny that Britain is entering the motor age in a big way. I believe we can deny it no longer. A motor car—1956—has been rightly called a pair of seven-leagued boots, a raincoat, a shopping basket, mobile office and even a makeshift week-end cottage: always at one's disposal for as little as 3d. a mile all in, and with virtually no breakdowns. In the difficult world of the middle class it is one of the few really good things: if you can use it. I am sure that all who can will and that the social revolution, churning on, will make cars as plentiful among wage earners as television sets.

The commercial vehicle is not quite so advantageous because, on long hauls, the restriction to 20 m.p.h. in Britain deprives the truck of one of its great advantages. On the Continent and the U.S.A. 30- and 40-ton loads travel at 50 m.p.h. And on short hauls loading and unloading points are so often congested. At Manchester

docks, vehicles wait an average of one hour and three-quarters before they can unload. Nevertheless the residual advantage is so great that nearly three-quarters of all goods by value now move by road. This includes much bulk goods. R.I.B.A. members will be familiar with an advertisement saying that the London Brick Co. Ltd. moved last year by road 881 million bricks and their vehicles travelled 21 million miles.

It follows that organised bulk transport, human or other, along fixed routes, is declining and individual small unit any-direction transport is increasing. This is made only too plain by the financial difficulties of the railways and the drop in the passengers carried by London Transport and other bus companies.

In order to be used efficiently, however, motor vehicles need space to move, to unload and for storage when unused. This and one other rather obvious fact summarise between them the coming struggle. A large part of our largest towns was built in Victorian times, in railway and horse-and-cart times, and the buildings cluster closely around railways and docks. The slide shows Liverpool with circles of 1 mile and 2 mile radii from the main line railway stations and also the approximate boundary of the city in 1900. The next slide shows the same thing for Leeds. Up to the first war, the buildings and the people were pinned down, close in, by the need for the short haul and a short journey to work. The jobs and the population were in the big towns. In the last 25 years there has been a great change. Largely by means of the motor vehicle, dwellings have fanned out around most towns, especially larger towns. To a smaller extent employment has also moved out, but chiefly dwellings.

Two forces have been at work which nourished each other. One was a widespread demand by the urban population for more elbow room; for houses and gardens, school playing fields and much else. The other was the motor vehicle's need for space. The two forces together produced the well-known sprawl. The jobs, however, to a very large extent remained in the big towns. Nearly all who could afford it have escaped as far as the chain of the daily journey allows. The edge of one sprawl touches the next in certain places and we have the conurbations. The six conurbations of England and Wales contain 40 per cent of the population; about 8 million jobs. The sprawl has not been halted since the war though we

intended to do so. This is shown by the plots of new dwellings built in and near London and Birmingham since the war.

In the last two years we have, I think, reached a new stage in the battle between the forces making for dispersal and those which favour continued concentration of people and jobs in and very near the larger cities. Motor vehicles have become available for all who can pay for them, we cannot postpone much longer the construction of special motor roads, and we have decided to pay much more attention to slum clearance. It is this last resolve, if it is really a resolve, that will compel us to examine dispersal much more searchingly and to take more determined and controversial action than we have so far. Forty-three per cent of the dwellings in Liverpool were found unfit for habitation by the Macmillan survey. At least 370,000 need clearing in the larger towns of the six conurbations. The amount of overspill of population that will be needed if central districts are to be rebuilt to modern standards of space has varied in different calculations. The Permanent Secretary of the Ministry of Housing and Local Government has recently accepted a figure of about two million people. As she has said, in terms of new dwellings needed outside the big towns, it is not at all an impossible one: 500,000 or 700,000 new dwellings.

In all other ways, to move two million people out of the big towns—right out of them and not merely to their edges—is likely to be very difficult indeed. It even seems to be so difficult that we have not got to the point of looking at it rightly. Two million people moved means the creation, in these days, of nearly one million new jobs outside the big towns; and, of course, the closing down of one million jobs in the big towns.

Put this way we can understand why the big cities are tackling the problem more formally, or at least more dutifully, than enthusiastically. Liverpool's overspill, for example, is put at 150,000. Liverpool thus has in theory to encourage the removal of 70,000 jobs and to take steps to see they are not recreated again in the city. It must be prepared to buy up the sites of the factories or other employments that move to prevent their being used again for the same purpose. But Liverpool is in a Development Area, a district that is held to need added employment, and 470 or more new factories and extensions have

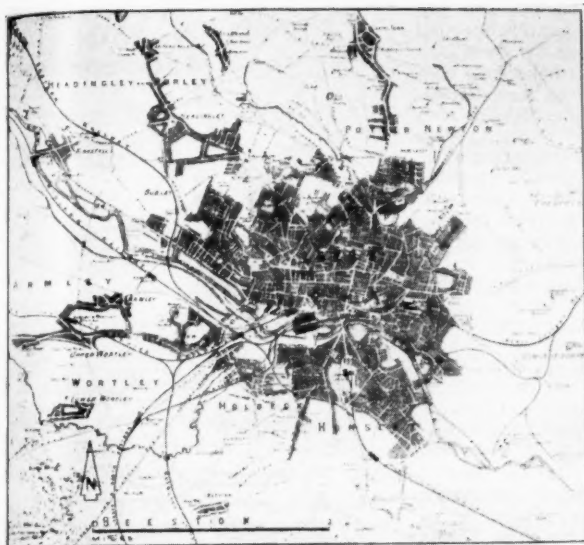


Fig. 1. City of Leeds about 1900, showing concentration of buildings around railway stations

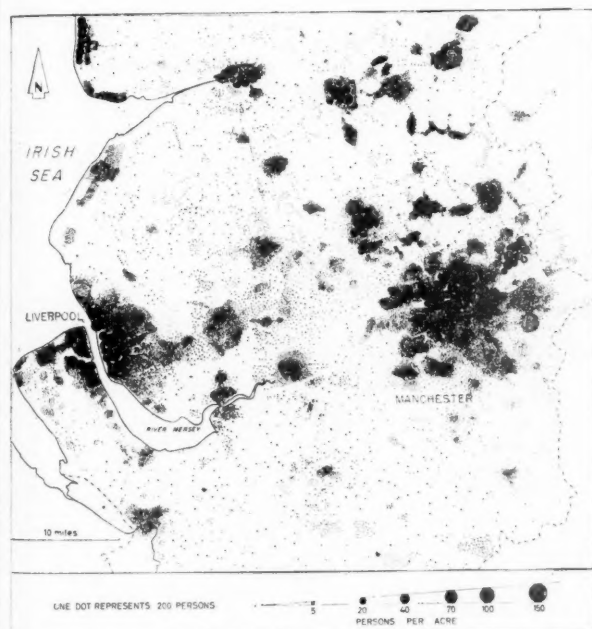


Fig. 2. Distribution of population in South Lancashire 1951

been licensed on Merseyside since the war. Liverpool may accept the fact that if its central districts are to be properly rebuilt 150,000 will have to move out. To announce that 75,000, or even 50,000 jobs are to be closed down, would be much less acceptable.

I suggest that the most far-sighted, energetic and wealthy firms and people will probably decentralise themselves. The coming motor roads and atomic power stations, in conjunction with the electricity grid, television and teleprinters will form a

frame on which a new motorised industrial and office-working aristocracy will build their own settlements, somewhere near a motorway and perhaps 50 miles from London or 25 from Birmingham. It seems surprising that more land and property companies have not thought already of shopping and office estates like the imaginary Cressington or the real shopping centre at Wilmslow near Manchester that opened a few weeks ago. I am sure that some developments of this kind will be

GREATER LONDON.

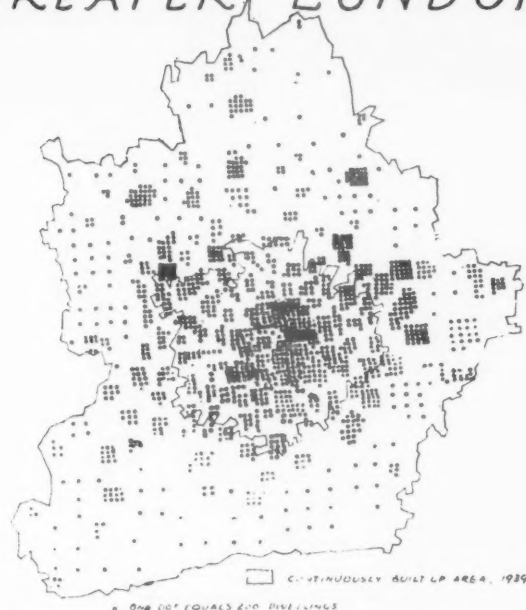


Fig. 3. Distribution of post-war dwellings in Greater London

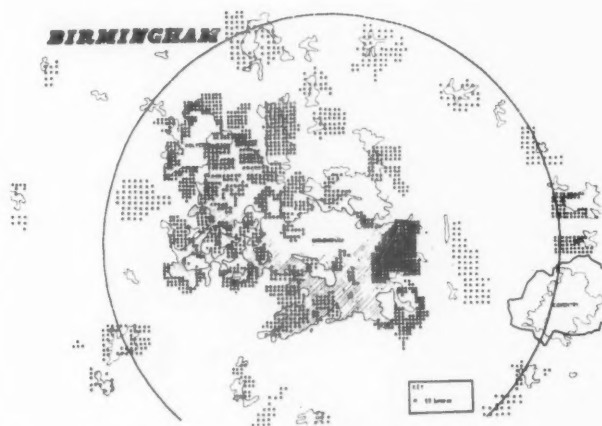


Fig. 4. Distribution of post-war dwellings near Birmingham

proposed directly we have our first motorways. To live, say, in Northampton and work in such a new centre, half-way between A5 and A6 and not far from A1, might well be to have Britain at your command in a motorised age and as pleasant surroundings as a reasonable person could wish for.

But unorganised private decentralisations of this type would probably give very little help to the big overspill problem. They would be too small in scale and too few.



Fig. 5. Liverpool from the air

At the present moment, at the outset of the new battle between dispersal and continued concentration, the Ministry and the big cities are at odds with each other. The Minister is disturbed at the new offices

springing up in central London and also wants the big cities to put green belts round themselves and to arrange for their own overspill. But he will not apparently consent to any more new towns being started. A big city, on the other hand, looks with lack of enthusiasm at the prospect, when money is very tight, of bribing some other local authority to take some of its population and employment and of then having to buy the site vacated by the employment. And if a family moving from the big city has been living in a privately owned house, there may be nothing to stop another family moving into that same house next day. So the big city may subsidise the receiving authority for ten years for nothing at all. It is hardly surprising that to many hard-headed but not at all thick-headed councillors of big cities the present schemes seem to combine the advantages of throwing money away and paying for your own funeral.

Yet the slums are there and they cannot be rebuilt unless half a million or so families move out of the big cities. Traffic

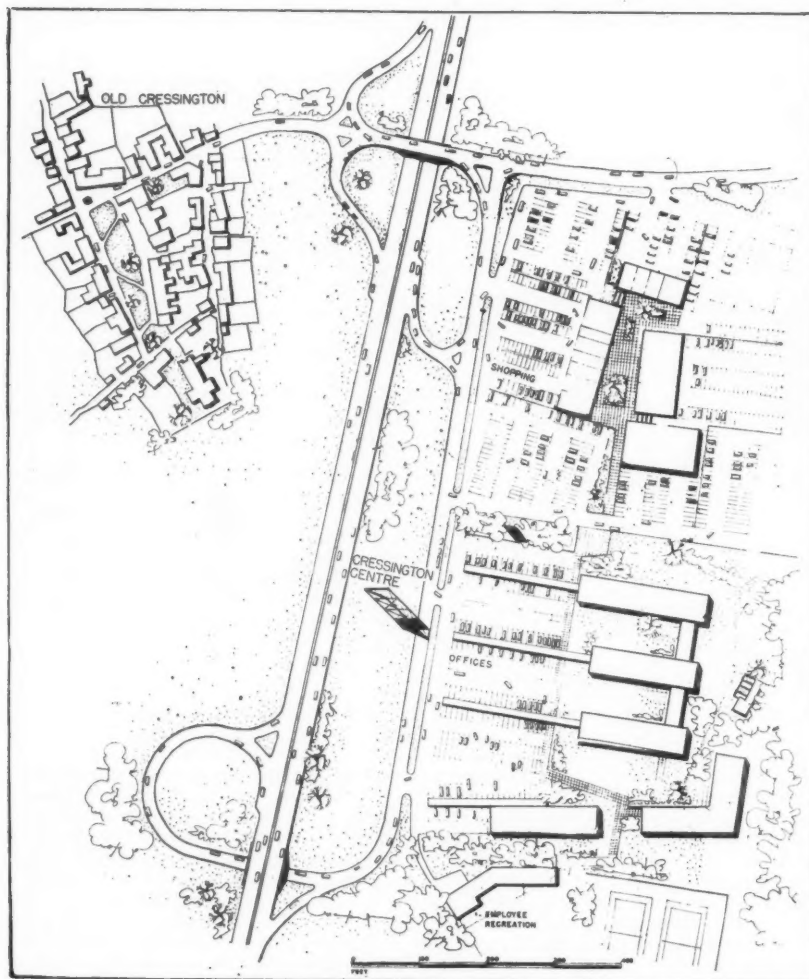


Fig. 6. Scheme for an office centre near an existing village



Fig. 7. Motorways proposed in 1946

congestion is also with us and is increasing fast. There are powerful forces making for dispersal and also powerful forces making for continued concentration. In these circumstances development is taking the form one would expect in this huge pull-Devil-pull-baker game. There is more or less random expansion on the outskirts of the big cities and as much central flat building

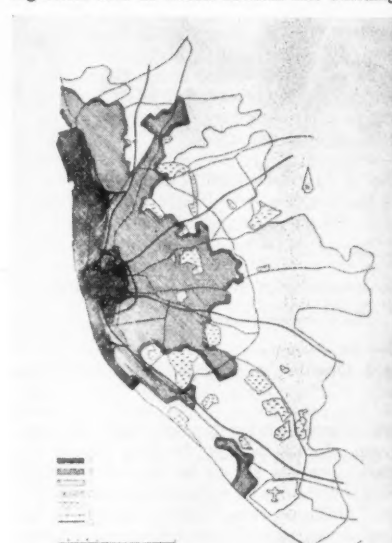


Fig. 8. Diagrammatic map of Liverpool showing residential districts, town centre, docks and possible urban motorway

Fig. 10. as pub London portions very real empty c If the prosper have a g mainly Unless business docks o again o perity o who ca structed require or below the cen we can German are abo they are If big c they ca

Fig. 9. U.S.A. JANUA



Fig. 10. A portion of the Gulf Free-way, Texas

as public opinion will stand. Outside London, the danger of decay of the inner portions of the Victorian cities seems to me very real. Liverpool has more than 700 empty offices in its central districts.

If the great provincial cities are to prosper in the motor age they must surely have a great deal of money spent on them, mainly to open them up to motor traffic. Unless a car can run right in to the central business district, or a lorry run right into the docks or industrial district, and get away again over unobstructed roads, the prosperity of the city will certainly decline. All who can will move out. To ensure unobstructed access to central districts will require urban motorways running above or below local roads when they come near the centre. I do not think we can say that we cannot afford these. Holland, Belgium, Germany and other countries have built or are about to build urban motorways and they are a commonplace of American cities. If big cities are to prosper in a motor age they cannot do without such roads.

PROPOSED DOWNTOWN EXPRESSWAY RAMP SYSTEM

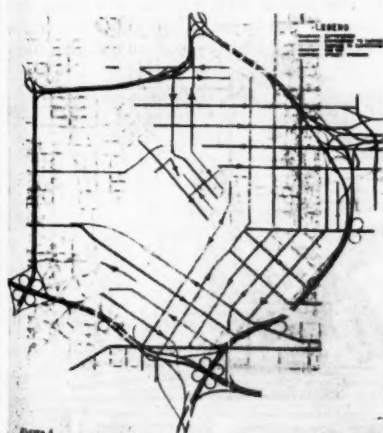


Fig. 9. Proposed expressways in Atlantic City, U.S.A.



Fig. 11. Raised ringway at Cleveland, Ohio

Their building will be assisted by the existence of blighted districts near the centre which should enable cheap routes to be chosen. This slide of Liverpool shows diagrammatically the kind of thing we must expect: several entrances to motorways serving the docks and the central business district and some kind of ring connecting them (Fig. 8).

The motorways will make a great difference to the appearance of our cities but not necessarily for the worse. Their scale is very large but they can also be very fine to look at. They will be the 20th-century equivalents of the Victorian railway viaducts and cuttings, and they will require skilful design by men trained in traffic engineering, of whom we have too few. They will be the new skeleton of the town. I see no reason why they should tend to cut up the town into sectors, provided they are sunk or raised. It is a major traffic route at ground level that severs one neighbourhood from another.

I believe a big city should not fear the cost. If necessary the motorways may be made toll roads. Few motorists, jammed in Moorgate or Oxford Street, would grudge a shilling to be wafted to the Barnet Bypass. As one who lives on the far side of the Mersey Tunnel, I find that great work has two great advantages. It offers an enormous saving of time over the old ferries and it makes one consider (grinding one's teeth) whether one really needs the car and whether two trips could not be combined into one.

Toll roads however require toll gates and a large 'stacking up' space. Otherwise the queues of vehicles at peak hours will block approach roads.

If room for urban motorways and their space-consuming approaches is to be found in the central districts, overspill, as now estimated, would be somewhat increased. At the same time, if the town has been given a new lease of life by the construction of the motorways, the export of jobs may become more difficult. I see no prospect of getting over this difficulty within, say, 20 years except by the creation of satellite

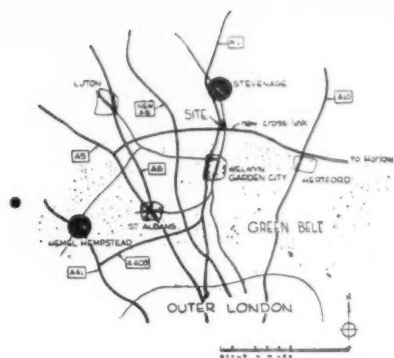


Fig. 12. Elevated motorway at Kansas



Fig. 13. Entrance to the Autostrada at Milan

towns fairly close to the exporting city. These satellites should be placed near a motorway, and if possible a railway line serving the exporting city, and should concentrate to begin with on the provision of jobs. Each would be an industrial estate, office centre and, so far as possible, a shopping centre laid out for a motor age. It would aim to draw out workers from the parent city. In the early stages workers would travel out daily, thus helping local transport companies to balance their rush-hour traffic and their budgets. Houses would follow, either in the new town or in adjoining existing small towns. The exporting city would be very closely linked with the new town or new regional employment centre. It might even own it and manage it so that one could have, as it were, a job in Manchester-in-the-town or in Manchester-in-the-country.



LOCATION OF REGIONAL OFFICE CENTRE

Fig. 14. Possible site for motorised office centre near London

This brings us to the problem of how far the satellite should be from the parent city. It is too complicated to examine fully here. In brief I believe that many employments and people will be willing to move a little way out of their home town but unwilling to go right away. The alternatives are not therefore long-distance decentralisation *versus* satellites, but continued random sprawl *versus* the satellites: a very different matter. Allowing for a green belt and faster travel by motorways, a distance of 10 to 15 miles seems most suitable for a provincial city.

One may also point out that a new town containing jobs and not people would seem to have great possibilities for London. It might be placed, for example, just outside the green belt among the northern new towns, near trunk roads 5, 6 and 1. The Minister has said he is very worried about the rush of new office building in central London. A new centre for up to



Fig. 16. Proposed inner ring road at Liverpool. 1946 plan.

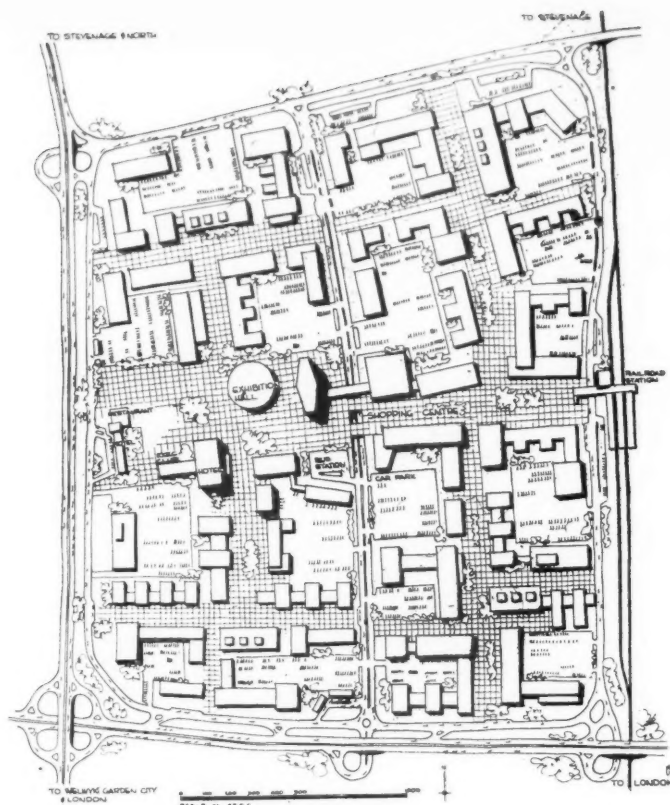


Fig. 15. Scheme for a large 'motorised' employment centre, chiefly offices, near London. The scheme includes an exhibition centre and a motel.

50,000 office workers on the outskirts would help to balance the inward flow of workers, would be extremely well placed for motorists and could hardly fail to be profitable. This kind of thing has already happened in the United States. Here is an insurance company that has moved out from Minneapolis to a site on a motorway, and the next slide shows a shopping centre nearby.

The broad proposal for overspill is therefore that plans should be based on drawing some firms and people out to the neigh-

bourhood of 'motor age' employment centres 10 or 15 miles away, and on the recasting of the exporting city to provide as well as possible for motor vehicles. This will cost a great deal of money but the city that does it well is likely to score very heavily over those that do not. The eventual aim is a city on a regional scale—whatever local authority boundaries may be. There would be one set of advantages for firms in the central city, another for those in the satellite. But there would be close connections between the two. A single firm might

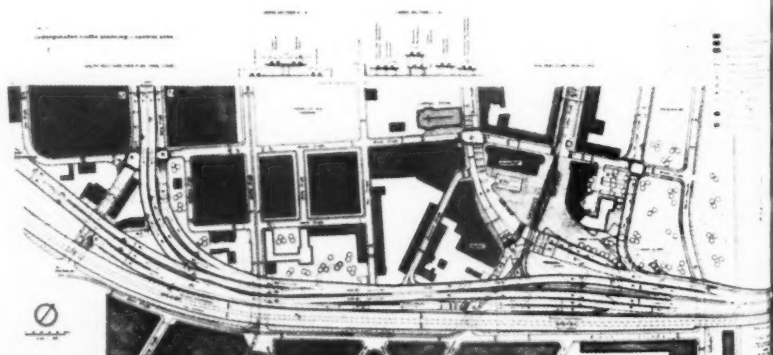


Fig. 17. Portion of proposed new roads at Ludwigshafen

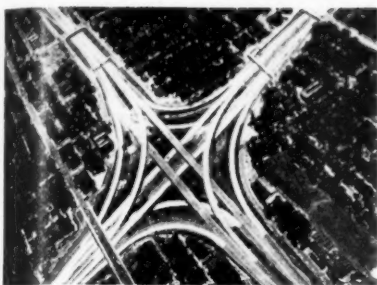


Fig. 18. Multiple overpasses in the suburbs of Detroit

well be split, with directors in the centre and the hundreds of young ladies working calculating machines in the satellite town, ten minutes from the tennis club. Most of the advantages of large cities would be retained: the large labour force, local market, local skills; but the jobs and the population would come to be regrouped in two divisions: a larger one in the exporting city and a smaller, fully motorised one, 10 to 15 miles away in two, three or four satellites.

There would be great difficulties in bringing about this regrouping. I may be reminded of some of them later tonight. I therefore reply in advance with the question: 'What are your alternatives?'—supposing we are determined to move two million people in 20 years.

In the time remaining I want to consider some of the more detailed results of trying to recast central areas so that they will handle efficiently far greater volumes of motor traffic.

I think we must accept that much bigger changes will be needed than city plans now usually contemplate; and this quite apart from urban motorways.

Here, for example, is a ring road proposed for a British city. It is a ten-year-old plan and may now have been improved. Note the intersections and contrast it with

these proposals for Ludwigshafen, which is not an American city. Note the 'channelisation' by lanes and the general appearance of a design intended to keep the traffic moving without impediment. Both in the U.S.A. and on the Continent main ground level routes are now planned as *motor traffic* routes, not as streets down which motor traffic is allowed to pass as one among several other uses for it.

If you are interested in what the Americans will really do to keep the traffic moving I invite you to look at this—a

Airport to Piccadilly. I repeat: no lights, no check at all.

When one turns to the central area itself we shall have to accept gradual changes, in the arrangement and form of streets and buildings. I suggest it is possible to forecast some of the new forms that will be tried and probably accepted.

In all these, separation of vehicles and pedestrians will be the main aim of one of the two main aims—the other being provision for parking of vehicles.

The next slide shows Church Street,

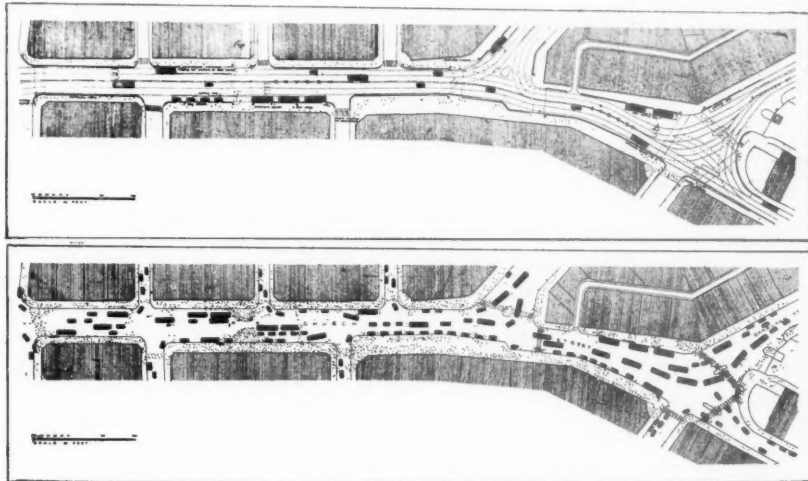


Fig. 19. An attempted improvement of traffic conditions in Church Street, Liverpool. Below, existing conditions. Above, proposed improvements by railings and channelisation

multiple changeover in the inner suburbs of Detroit. There are I believe 18 bridges here. And the traffic does keep moving in at least very many places in the States. One can drive from Idlewild Airport to Central Manhattan at 40 to 50 m.p.h. without any check at all save for one toll bar—comparable with a journey from London

Liverpool's main shopping street, as it now is at a busy period: a spilt work-basket of buses, pedestrians and cars. The following slide shows an attempted improvement by railings along the kerb and by channelisation. This is an ingenious effort by a group of post-graduate students but it would not work. Boarding buses and taxis would be

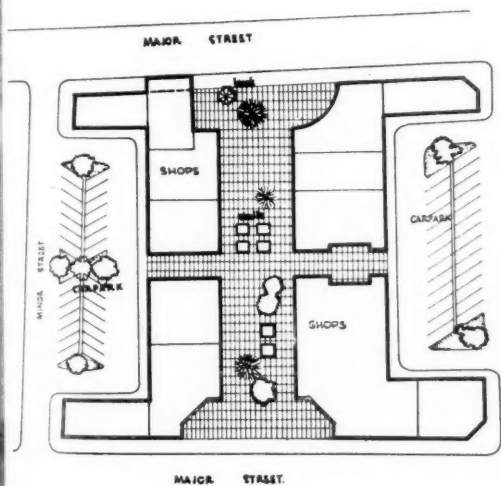


Fig. 20. An 'island' comprising a single street block

257

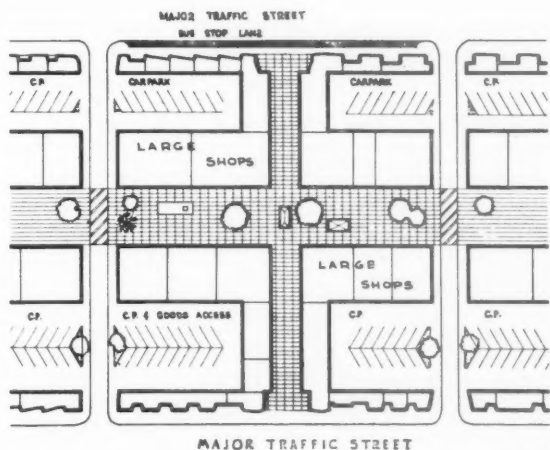


Fig. 21. 'Islanding' applied to three street blocks showing large shops brought into the centre of the block

257

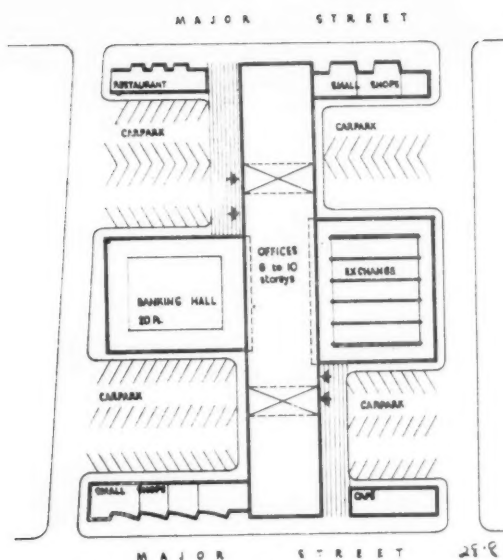
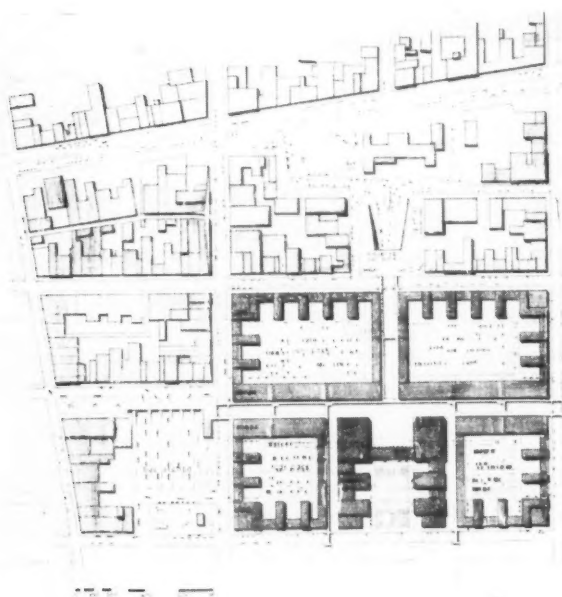


Fig. 22. An 'island' office block



TOTAL SITE AREA 25 ACRES BUILT ON AREA 22.5 ACRES CAR PARKS 10.5 ACRES 6,000 CARS
 PEDESTRIAN SHOPPING STREET 1.5 ACRES SHOPS INCL. BASEMENT 1,200,000 SQUARE FEET
 OFFICES INCL. BASEMENT 2,350,000 SQ. FT. SHOP FRONTAGE 2 FLOORS 10,400 FOOT RUN
 TOTAL WORKING WORK SHOPS & OFFICES 30,000 PEOPLE SHOP WORK INCLUDES CUSTOMERS 8.5 AC
 FRONTAGE 174,000 SQ. FT. IN OFFICES & SHOPS

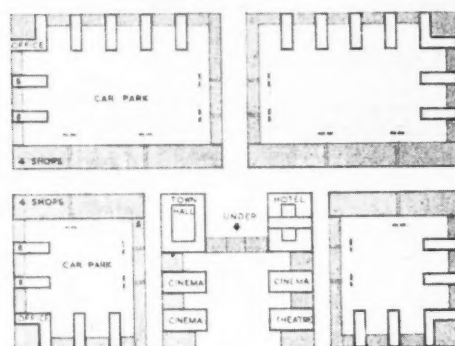


Fig. 23. Diagrammatic plan for a 'super island' for offices and shops

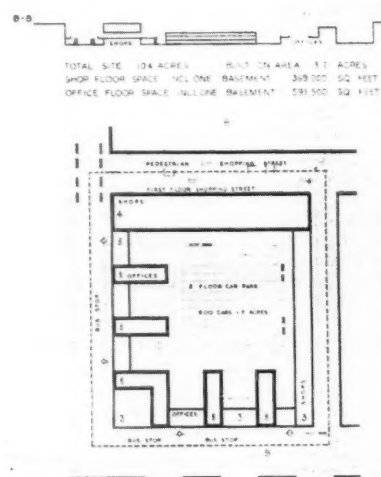


Fig. 24. Details of the 65 acre scheme for offices and shops shown in Fig. 23

very difficult indeed, and the effect on the shops would be very harmful.

The only solution is to create islands into which one tries to draw pedestrians and vehicles that want to unload or park. The next slide shows a simple arrangement of this kind. A pedestrian way has been cut through between two major streets. Big shops are in the centre, small shops on the major streets and car parking and access for goods vehicles are off the side streets. There are, of course, quite a number of arrangements of this kind now in existence. For example, both at Coventry and at Rotterdam 'islanding' has begun (Fig. 20).

The next slide shows an extension of the same idea. Three street blocks have been turned inside out, as it were. The major shopping street is now pedestrian. No stopping at all would be allowed in the traffic street save by buses in the special bay. In most provincial cities such a ban would abolish congestion and delay save at peak travel hours, and would reduce it then (Fig. 21).

The next sketch plan is of an office block similarly laid out. Some big office entrances approach this form already.

The preceding slides have shown possibilities of gradual small-scale change, block

by block. What are the chances of a big change: the creation of a kind of motorised central area?

There are undoubtedly great advantages in a big scheme. The amount and quality of accommodation, the convenience and publicity value of a 50-acre scheme, carried out as one project, would far exceed the total offered by 20 scattered redevelopments of equal total acreage.

Here, diagrammatically, is one such scheme covering 65 acres. It would contain enough room for 30,000 workers and visitors and 6,000 cars. Its shops and offices would contain not far short of half



Figs. 26 and 27. Aerial views of the Pentagon at Washington

the floor space now in use for those purposes in the central area of Liverpool. It would be a super-Coventry, entirely pedestrian. Here is a detail. There would be two floors of shop windows and entrances, the upper being approached by the overbridges. Once one had arrived in the Centre it would be almost impossible to be run over. A city that carried out a project of this kind with sufficient energy and boldness might achieve a great success.

But we must not underrate the traffic problem, especially the peak hour traffic problem, if the whole nation is to remain of one mind on one point: that it is going to stop work between 5 and 6 p.m. If we assume that 7,500 people try to leave in the fashionable hour in 5,000 cars (leaving, say, 17,000 to go by bus) it is certain that they will not be able to do it. A reasonable guess is that it would take two hours to clear the car parks.

Things would be improved if the project were extended to include neighbouring land, and to provide tunnel access to the car parks from some distance away and also a bus station where buses could stack up and load quickly at the rush hour.

The project thus becomes very large and would probably not allow more than about a quarter of the workers and visitors to drive to and from the centre. But that does not mean it would not be worth while. My own view is that if a big city carried out a large scheme of this kind it might reinvigorate its central area and make it very attractive to offices and shops for a long period ahead.

We have to remember that a fully motorised central area in a big city—over half a million population—is an impossibility. The great advantage of being in a town centre is proximity to other traders and professions, to exchanges and telecommunications: to be on the spot, in the know. As more motor vehicles are used, demanding room for their storage and

movement, the people are inevitably pushed further and further apart. We have made some studies at Liverpool of how much further. It is clear that it is a great deal further directly the ratio of cars to workers becomes over one car to five people. The trouble occurs not when the vehicles are at rest, but when many of them try to move at the same time. To avoid congestion in rush hours much land is needed for approach and dispersal routes.

If one demands an unchecked run in, easy parking, a more or less unchecked run out and a vehicle/people ratio of one to two or thereabouts, it is clear what the end must be. Here it is: the Pentagon at Washington, its car parks and approaches.

It is contended that for British cities—and here I am thinking mainly of the large provincial cities—our aim should be a very great improvement of vehicular access to the centres, and some fully 'motorised' satellite towns not too far away. The whole would be a balanced city on the regional scale. There would be one set of advantages in the centre (including car parking space for every five or seven people) and other advantages in the fully 'motorised' satellites. The architectural and engineering problems are very great. They seem to demand more attention.

DISCUSSION

Mr. Colin D. Buchanan, A.M.I.C.E., M.T.P.I. [4]: I count it a great honour to have been asked to propose a vote of thanks to Professor Myles Wright for his most interesting and provocative paper.

Although Professor Myles Wright has linked the subject to urban overspill I think what he is really asking is how town planning copes with the motor vehicle. In the last ten years we have made many notable advances in planning techniques, with some of which Professor Myles Wright has himself been closely associated. We have learned

a great deal about open space needs, school standards and housing requirements; we have investigated land use classification and central area redevelopment; we have uncovered some of the mysteries of residential density; but no comparable progress has been made in deciding how to deal with the state of infestation of urban areas by motor traffic.

I do not think it is just a matter of money. If unlimited funds were made available overnight for London traffic, for example, I feel sure that bedlam would break out in the correspondence columns of THE TIMES, with thousands of suggestions all sharing the common feature of being different. Just why the subject lags in this way would make an interesting study. The explanation may lie partly in our system which tends to keep road planning on a separate plane of engineering, and partly because the motor vehicle has, in spite of what Professor Myles Wright has said, crept up on us. The increase of traffic, though very great, has been slow enough for us to accept it without realising what it has been doing to us. Many of the things one meets in town planning, such as slums, lack of open space, dreary offices and crowded schools are manifest evils and anyone can be persuaded that they are wrong, but I am not sure that traffic congestion is accepted as a social evil as these other matters are, and therefore has not perhaps had the same concentration of thought. It may be, too, that it is inherently a much more difficult subject to unravel.

Therefore it is a significant and important occasion when we get a professor of civic design switching his headlights on problems of road traffic and it is doubly significant that that should take place, if I may risk some dangerous driving, in the hall of the Royal Institute of British Architects, because I am quite convinced that to the architectural profession must fall a

large part of the ironing out of the problem of motor vehicles in built-up areas.

The central proposition which Professor Myles Wright has put forward this evening will, if I am not wrong, be subjected to a good deal of questioning. His idea, which seems to arise out of the imperative need for overspill, is the creation of regional cities which will comprise a parent nucleus, without overspill and rehabilitated for traffic, and nearby satellites where the motor vehicle is accepted wholeheartedly as a basis for design. Between the satellites and the heart of the nucleus would be a motorway connection of extreme merit. If you think of it as a diagram it has an appropriate appearance for the atomic age.

I think people may want to know, amongst other things, in what fundamental way this differs from what we have already planned and to some extent carried out in Greater London with its New Towns. I think it may be asked whether it is implicit in this that our present New Towns are not 'motorised', and it may be asked what form they should have taken to qualify as 'motorised'. Some light-hearted person may ask, if it is fairly easy to overspill people but so difficult to shift their jobs, why not go the whole hog on fully motorised residential satellites, leaving the factories where they are but with much more space available for efficient rebuilding? I must not anticipate too many questions but I feel like making a personal confession, which is that I do not wander at ease in the overspill jungle. I find it a dark and confusing place and I have some difficulty in connecting the mass manipulation of people and work places on the one hand with, on the other hand, the hubbub and confusion and killing and wounding and the whole brutally uncivilising influence of the motor vehicle which I see now in the streets of London and every other city, town and even village in the country.

I feel on safer ground when I turn to the problem of accommodating the vehicles that circulate amongst buildings and I have been very much interested in Professor Myles Wright's suggestion for islanding, which is a new word for precincting. His 50-acre scheme strikes me as a very important contribution to civic design techniques and I look forward to studying it more closely. Architects will have a vital part to play in this field.

I have one observation to make and one suggestion which I hope may perhaps be appropriate to an audience of architects, many of whom are something of specialists in circulating problems, many of them of great intricacy. My observation is that I think we should not underestimate what the motor has done. I think it is nothing less than this, that it has inserted itself inextricably into all the activities of our life so that we depend upon it for a high proportion of our comings and goings. Every building in a town centre is now dependent for its functioning upon the continued arrival and departure of motor vehicles, and the result has been the overlaying of the town with a journey pattern of great

complexity. I do not believe that the criss-cross nature of motor journeys has ever been fully disclosed or appreciated. Civic planning has been obsessed with the ideas of through-traffic and canalisation, when in fact a great deal of the use of motor vehicles is almost the reverse of canalisation. The result of this spread-out of motor journeys is the springing up of a vicious conflict between pedestrians and vehicles. In my view this is by far the worst feature of the whole motor situation, and I am glad that Professor Myles Wright gave it a special mention.

My suggestion arises out of this. Given a horizontal spread of existing buildings, and of motor and pedestrian journeys, is there not an alternative to islanding in the shape of simply raising the whole of the pedestrian circulation to first floor level leaving the motor vehicles at ground level in the far more space available to them? I was interested to see some element of vertical segregation in Professor Myles Wright's plan, but fuller acceptance of the principle might, I think, involve less disturbance and upsetting of ownerships, values, leases and tenancies, coupled with the absolute certainty of restoring the pedestrian to civilisation. That is what I think is at stake.

Mr. R. T. Kennedy, C.B.E., M.T.P.I. [4]: I rise to second the vote of thanks to Professor Myles Wright with a great deal of pleasure on two counts. The first is that I have been listening to an old colleague from the early days of the Ministry of Town and Country Planning and the second is that Mr. Buchanan has said that there is far too little speculation amongst architects on the future of our New Towns in relation to motor cars and motor vehicles generally.

On the second point I must say that my quick reaction to motor vehicles—private cars—anyway in towns like London—is that there are too many of them and too many of them are stationary. You will gather from that that I am not quite so enthusiastic about the private motor car as Professor Myles Wright has been, although I regard them, from the point of view of my comfort, as indispensable!

It is pretty plain that anyone who lives in the middle of the town does his best to get out of it at the week-end. It may be that he gets out in the cheapest old crock and that he only goes along the Great West Road for fresh air, but at least he gets away from the towns, which will not have fresh air and sunlight for another generation. People will make enormous efforts to get a car for that purpose. People will make do with almost anything to get out at the week-ends. It will make a big difference to the centre and outskirts of our towns.

I think really Professor Myles Wright's main theme is the removal of two million people from the centres of our towns in the next 20 years—that means half a million houses. He made some suggestions for dealing with that particular situation. He then said, somewhat defiantly, 'What are the alternatives?' Now that he is a Lan-

cashire man by adoption he will not be surprised if we say 'Nowt', because there is a complete indifference as to what can happen if you get just one more of any particular thing, whether motor vehicle or anything else. We will do something about it. I think it is the common objective of every political party and of most decent-minded people in this country to get these two million people out somehow, but it will be done in an enormous variety of ways.

It will be done, I hope, by means of New Towns. It will be done by means of expanded towns and by peripheral development—that is inevitable—and it will, I hope, be done by means of some of the things which Professor Myles Wright has described as regional centres. I am not too happy about the diagram showing where the first one will be—if he only knew the difficulties we have in getting a bus between Stevenage and Welwyn Garden City! I am a pessimist about this. I cannot feel very optimistic about the chances of 65 acres, housing 30,000 workers, being built on anything like the lines suggested by Professor Myles Wright in one of our bigger cities. I do not think we should forget that what may be possible with a completely different system of land tenure and estate development with enormous financial resources, such as in the United States, is probably not possible here. I do not think it is possible.

We have done quite a lot, although not enough, in the way of city redevelopment of the kind which has been done so admirably at Coventry. That has been done on quite a big acreage but with very big contributions from central Government because of the blitz and so on, and it has been done wholeheartedly by a particularly strongminded local authority. I cannot see such a revolutionary proposition as Professor Myles Wright has suggested being adopted by any local authority because I think that our democratic processes always iron out a good deal. The proposal would be discussed. It would not be a proposition for one man to decide upon, but would have to go through numerous committees and councils and would eventually be discussed in public and that would reduce the original idea quite considerably.

I am not so sure, either, that we ought to do it. You know, if you go into economics you will find that it costs a dickens of a lot to put a motor car under a building and it costs a dickens of a lot to keep it standing there for half a day. I may be wrong, but I think it costs £300,000 to provide a place for a motor car in the City of London. That cost must be added to the cost of the ordinary building development, that is, the cost of the floor space. It is a formidable task to work out exactly what the return from that kind of development is going to be and I cannot see local authorities doing it. Unfortunately we shall not have enough money from private enterprise to tackle things on quite that scale. I wish we could. I think in this country the centres of our towns are too heavily encrusted with foundations, pipes, sewers, tunnels, ancient monuments and so on. It

would take an enormous amount of shifting and it would cost an awful lot to shift it all. I am not joking. It is not comparable with the situation of the 19th century railroad developers. I have the greatest admiration for the railroads. When we see viaducts we say 'Why not roads like that?' But I think the position has changed. We have too much to get rid of.

Professor Myles Wright has not mentioned a great deal about the residential areas. I apologise for taking up time on this, but I have frequently been given the very interesting problem of trying to put in at least 50 per cent of garages in relation to houses on particular housing estates while still keeping the density high. I find it, as a planning problem, simply terrific. I know that quite a number of other people have been working in this field and it is really fascinating to try to provide one garage to every house or every other house. It can be done; the speculative builder will do it easily. He does not make the mistake which local authorities make of not providing these garages for residential areas. He provides one for every house and he is absolutely right. It is a fascinating problem to see how in fact, even on new territory, it is possible to work in anything like 50 per cent, let alone 100 per cent of garages.

Ideas have not been properly developed in this country. Too few people have thought out what we are going to do when every other family has a car. So far as the inner parts of our towns are concerned, goodness knows what will happen. What is to happen to the old development such as you see in the streets of Chelsea or Kensington? If more cars are to roll on the roads, goodness knows what Kensington or Chelsea will look like in ten years.

I was not impressed by Professor Myles Wright's account of the speed which can be attained by a car going from Idlewild to New York. When he was describing that and saying that it could be done here I thought of the other transport problem. I wondered whether the money spent on that particular engineering feat—and it is an engineering feat—could not have been better spent on relieving the people who have a daily journey to and from work and travel in conditions where they are squeezed, choked and torn to pieces—sheer torture every day. I am not interested in the casual visitor. We have to think what to do with the vehicles of the thousands and not the vehicle of the occasional visitor.

Mr. D. G. Lewis: In the Ruhr there is a very effective monorail. Now we have so many concrete posts in our streets, and reinforced concrete buildings, would it not be possible to spring a big arch and have a monorail with a streamlined, aluminium gondola and park our cars on the outskirts and whip through to the centre? That would solve the problem of travelling from the centre of London to London Airport.

Mr. J. L. Womersley, A.M.T.P.I. [F]: I feel almost too depressed to speak! I think that what I picked on as the underlying fundamental of Professor Myles Wright's

very interesting paper was the word 'segregation', because whether we can afford to spend money or not we cannot go on functioning with such numbers of vehicles and pedestrians unless we explore segregation to the full. There may be two kinds of segregation. In the suburbs there could be lateral segregation. I think that a higher percentage of garages could be achieved. Then, in the central built-up areas, there is a tremendous amount to be said for vertical segregation, particularly in those cities, of which mine is one, where it would be difficult to uproot all the services. I think that a raised pedestrian deck carrying the shoppers has tremendous possibilities. In creating such decks one feels that initial floor space is being created in areas which are of high land value. There must be some compensation for money spent on such construction.

If ever there was a job which called for teamwork on the part of architects, town planners and traffic engineers, this is it. I think we ought to look on this lull we are getting because of the petrol shortage as God-given and that we should make up for the time we have wasted in not getting more ready-made solutions to the problem. We are very fortunate that there has been such a thing as purchase tax on cars because otherwise we should already be in a frightful mess. We shall have to spend some money in order to get out of the present mess and I should like to feel that this very provocative, interesting and objective paper will not merely remain a paper. We must all get together under the auspices of this Institute and the Town Planning Institute and tackle this problem, which can certainly be solved within the economic possibilities. I hope that this paper will be the beginning of some applied work in this direction because otherwise we shall be condemned as having failed our generation in one of its most pressing problems.

Mr. W. H. Scanlan [L]: I was very happy to hear Professor Myles Wright's remarks with regard to the satellite towns easing the traffic problem. My experience over the last few years resulting from New Towns is that they are making the problem more continuous than before. I have in mind, for instance, that Windsor Park is the worst road for heavy lorries taking things from London to Bracknell. We are getting congestion due to traffic coming in from the New Towns and therefore there is a greater problem in central London than ever before. I suggest that before we embark on more New Towns we must give consideration to the centre of supplies, which will always remain the big city. Going eastwards, the London County Council built large estates which were going to relieve the pressure on London. The opposite has been the result. The temporary housing estates have become new centres of population and industry linked to London, and they are causing a good deal of the congestion from Essex through the City of London and the West End to the west of London. If a serious study is made of the problem it will be found that that

is the result of satellite towns round London.

I think that town planners must concentrate on the replanning and resiting of industry in the centre of cities. The siting in London, for instance, is what it was 100 years ago. Nothing has been done. The cause of the present day congestion is that we are not facing our problems where they should be faced, namely in the centres of the cities, including Liverpool—although that city really has no traffic problem so far as I know.

I should like to add my thanks to those of others for Professor Myles Wright's very vital and interesting paper. I say to new members that they must think anew and forget what the planners have said for the last ten years. They must start *de novo*.

Professor Sir William Holford, P.T.P.I.

[F]: I think the main conclusion that I have drawn from Professor Myles Wright's paper is that the motor vehicle and civic design do not live together very comfortably at the moment and that various degrees of judicial separation and divorce will overtake us in the near future. Le Corbusier and others have been saying it for many years. What I think we have had this evening is a kind of sane approach to this enormous combined operation in the face of incipient madness which is overtaking us.

I do not agree with Professor Myles Wright on many small points, but they are not worth discussing, because everyone knows almost as much about traffic as they do about architecture, which is saying a great deal! I think it is this point about a combined operation that the paper has laid on the table. We must obviously, I think, have more housing nearer to work, which means the opposite of what we have been doing for a long time. We have got somehow to accept the fact that we cannot have preservation and the bedlam in THE TIMES which has been referred to—it is a question of preservation versus spiriting something away. We have more historic buildings to the square mile than any other country and therefore restriction has to enter into the problem.

There will be the natural restraint of congestion and delay and police action and there will have to be official restriction on certain types of vehicle which we do not attempt to do at the moment. There will have to be many other things. The surgery will have to start at points of conflict such as righthand turns, entrances to parking places, traffic lights and so on and there are many things which we shall have to study more before we can say whether we can empty some of the employment centres in the centre of the towns. We must study why it is more economic to build an empire in the middle of London than to send the girls out into the suburbs. There are reasons for these things which we have not studied.

All I will say is that I have very much enjoyed hearing the statement put. This is No. 1 problem that faces us and I think we are fortunate to have had an introduction to it this evening.

Mr. S. Johnson: I think one of the points we must bear in mind is that the momentum of the motor vehicle has put the country out of scale with the vehicle. There must be an opportunity for considering assorted speeds which will be consonant with a vehicle traversing an open road and one entering a city—a car must slow down, for instance, when entering a city.

I agree with Professor Myles Wright that the satellite is the right thing. It acts as a buffer between the open space beyond and the metropolitan city sited near. I am inclined to think there is an anomaly there because Professor Myles Wright suggested that from there on there would be a wide straight road which went to the large city and some of his slides showed it going right to the heart of the city. I think by analogy there should be subsatellites about the city which would afford car parking space, thus draining off the influx of cars and allowing the city centre to be wholly pedestrian. If the argument be maintained that the main road carries straight on to the city centre, then I would suggest that there is reason for supposing that the offices, indicated as decentralised north of London, should be retained in the city centre and, on balance, the roads taken straight to them and that one radius should be accepted instead of several radii.

Professor Myles Wright: I should like to refer to one or two points which have been put in the course of this very interesting discussion. Mr. Colin Buchanan thought that I gave too much importance to the question of overspill as opposed to the motor car. I think that the two together are of equal importance and that jointly they comprise our major problem. I think Mr. Buchanan said that he was not sure what the difference was between my ideas and the existing New Towns. Well, the paper was rather compressed but I believe that the New Towns and of course what has been done under the Town Development Act are far too small in scale to affect the problem of moving two million people within any reasonable time. I am all for moving 30,000 people out to 70 or 100 small towns if someone will tell me of any method by which we are likely to do it within a reasonable period.

Another point made by Mr. Buchanan was that of leaving the work in the town centre and having express motorways to bring in the people from residential satellites. I do not think that that would help to spread the load. One of the views I was trying to express was that if we have to commute let us commute both ways and pep up our unfortunate transport companies.

I claim no credit for the term 'islanding'. I do not know who invented it but it has been used for a couple of years at least. I have no objection to going back to 'pedestrian precincts' if Mr. Buchanan wishes.

Mr. Kennedy had a lot of objections to my ideas. He mentioned living in Liverpool and wanting to get out at the week-ends. When I took up my present job I did

seriously consider living in the centre of Liverpool but I decided that with a young family it was hopeless every day of the week as well as on Sundays. At the moment it is like that and I am sure that the same applies to many central areas in a number of cities. I was careful to say that I was not particularly 'sold' on this particular type of satellite but that I saw no alternative. If anyone can suggest a reasonable alternative that will do the job in a reasonable space of time he will have me as an enthusiastic supporter. I thought Mr. Kennedy was a little rough when he said that he was concerned with the transporting of the masses and not with the occasional person. Anyone who has been on the New York parkways and talks about the casual person is not doing them justice.

I find that I agreed entirely with Mr. Womersley, especially the fact that he stressed the importance of traffic engineering. It has been most depressing in the last ten years to know that either we have not had traffic engineers or that those we have had have not succeeded in applying their

knowledge in the preparation of development plans for big cities.

Mr. Scanlan seemed to think that I was personally responsible for Liverpool. I am not, but I appreciate the difficulties of those who are. Fortunately I am not called upon to cope with Liverpool's problems.

I agree with Sir William Holford that for a combined operation we need planners, architects and traffic engineers. I disagree with sending the ladies out of the city centres. I was not concerned with doing that but keeping them there! I was going to recruit them locally so that they could look after mother or do their shopping in the lunch hour without crowds.

SOURCES OF ILLUSTRATIONS

Fig. 1. City of Leeds Planning Department.
Figs. 2, 4, 6, 8, 15 (Howard Dahlgren), 16, 19, 20, 21, 22, 23, 24, 25: Department of Civic Design, Liverpool University.
Fig. 3. Town Planning Institute; Report of the London Regional Planning Committee.
Fig. 7: British Road Federation.
Figs. 9, 17: Urban Motorways Conference.
Figs. 10, 11, 12, 13, 18: Motorways Exhibition.
Figs. 26, 27: U.S. Library of Information.

Gaps in Building Know-How

A Week-end Symposium organised by the Preston, Blackburn and District Society of Architects

WHETHER MANY ARCHITECTS, surveyors and builders would be willing to give up a week-end to discussion of building industry problems was the primary risk incurred by the Preston Society in organising their novel symposium at the end of November last. That no less than 55 persons attended at Alston Hall, Longridge, a number which comfortably filled the lecture room and refectory, proved that the risk had been worth taking.

It was a joint affair, the Preston Society having obtained the co-operation of the Building Centre, of the Lancashire, Cheshire and Isle of Man Branch of the R.I.C.S. and of the North-Western Federation of Building Trades Employers. Four distinguished speakers—among them the President of the Institute of Builders—covered between them the five principal fields of the industry's activity, namely design, construction, information, materials and costs.

Very early it became apparent that a residential symposium has great advantages over one to which members merely come for the day. Members got to know one another personally to an extent not possible at a non-residential symposium. Discussions continued at meals and late into the night around the bar (provided on a purely temporary but effective basis by the Preston Society), in the sitting rooms and even in the bedrooms. But perhaps the principal advantage was that—as one speaker suggested—the component parts of the building industry in central Lancashire were meeting for the first time away from building jobs to formulate some measure of common policy.

Alston Hall is a 'baronial' stone mansion

built some 70 years ago by a coal magnate on a superb site overlooking the Valley of the Ribble. Recently the Preston Corporation bought it, transforming its heavy Victorian interior with a sparkling and comfortable modern décor and furnishings, for use as a College of Further Education. They appointed an experienced Warden in Mr. Jack Lightfoot, B.A.; the success of the symposium owed much to his excellent domestic arrangements and to his charming welcome at the opening meeting.

The originator of the idea and inventor of the title of the symposium was Mr. R. Allport Williams, M.B.E. [F], Deputy County Architect of Lancashire and Vice-President and P.R.O. of the Preston and Blackburn Society. He was enthusiastically backed up by his Council and its President, Mr. Tom Mellor, A.M.T.P.I. [A]. The staff work was done by Mr. Allport Williams and Mr. F. A. Hewitt [A], Hon. Secretary of the Society.

The members assembled on a Friday evening in time for dinner, after which the President explained the aims and objects of the symposium. On the Saturday there were two meetings in the morning, the afternoon was free and there were two further meetings after tea and dinner respectively. On Sunday morning there was another meeting and a summarising of the discussions. The proceedings ended with lunch.

Two interesting features were a small exhibition of some building material novelties arranged by the Building Centre and some wall diagrams illustrating modern building techniques lent by the Ministry of Works.

The following are summaries of the papers and discussions.

'Selection and Design' by George Grenfell Baines, A.M.T.P.I. [4].

The first and most important gap in building know-how, said Mr. Grenfell Baines, was in the understanding of one another's problems. We were of necessity a compartmented industry without a central direction; for this we had to substitute co-operation. Building industry problems were both technical and human and arose from economic and social conditions.

Giving some facts on the basic economics of the industry, Mr. Grenfell Baines said that today the nation's building had to be done by a smaller proportion of the total labour force and raw materials output than half a century ago. In that time some 40 to 50 entirely new industries had been created. While these new industries were necessary to us as an exporting nation, the building industry had suffered from their creation. The industry was in fact trying to do more and more building with less and less resources.

These facts had to be faced. The solution lay to some extent in mechanisation and in standardisation, but there were limits to these methods. The outstanding need was for a thorough understanding of costs, especially by the designer. Inaccurate costing was the industry's greatest weakness. The cost service of the industry was primitive; manufacturers were vague about the prices of their products, especially when fixed; there was a lack of co-operation between architects and builders in any effort to reduce costs; often there was no effort at all. The quantity surveyor could do much but he could not beat the elbow of the draughtsman drawing details.

There was insufficient knowledge in architects' offices about workability in assembly. The architect designed and specified something with little knowledge of how it could be assembled. Often this knowledge would ensure a saving in cost. This gap in know-how could be bridged by earlier consultations with builders and the industry was working towards this end.

Turning to the question of management, Mr. Grenfell Baines said that architects gave builders intensely human problems in management. They confronted the builders with new highly specialised techniques on top of the traditional craft skills. Builders and operatives showed resistance to these new techniques so that they had to be carried out by the operatives of specialist firms, whose presence on the job set up difficult management problems. The specialists were here to stay so long as builders were unable to tackle these new trades themselves. Architects at heart preferred the all-round builder but were driven to using specialist sub-contractors. A rebirth of the builder's interest in all spheres of education, apprenticeship and training was badly needed.

Another gap in know-how was in technical information; this service was diffuse and weak. The industry suffered from a lack of precise information on the cost,

performance and weathering properties of many techniques and materials. There was little exchange of experience. Such information as existed could not be readily keyed or indexed for quick and easy reference.

Mr. Grenfell Baines said he felt we used too many techniques and materials. Each building was liable to be a separate, individual design down to its smallest details. This made it unfamiliar to the builder and operatives. When a thing was familiar to everyone concerned with a building—when they had all done it before—it became less costly to produce. He would like to see established a 'district vernacular' of modern architecture. There could be a range of standard agreed details for such things as eaves overhangs. This had been done in Denmark even to the extent that an architect could show a roof on a drawing in mere outline and specify the type. Everyone—architect, builder and operative—knew exactly how that roof should be constructed and how much it would cost. This would be one method by which we in Britain could reduce our operational and overhead costs. He did not think it would result in a dull, stereotyped architecture. Standardised details had been used in Georgian architecture with acknowledged success.

Turning to lightweight prefabricated construction, now so much used, Mr. Grenfell Baines said he felt we had very nearly reached the limits in this. The cost of prefabrication was tending to outweigh the saving in material. Factory fabrication suffered from enormous overheads from which work on site was largely free. He thought also that there were limits to modular co-ordination; if carried to excess it could become a costly hindrance. Also, it introduced an entirely new and difficult set of problems in the treatment, finishing and dimensioning of edges.

Discussing the classification of information in the architect's office, Mr. Grenfell Baines said that in his own office they had a full-time person in charge of some 2,600 catalogues and items of information and who had about 40 requests a day for them. This service cost 2½ per cent of the office technical salaries but he was satisfied that it paid.

In the discussion following the talk by Mr. Baines, Mr. G. Noel Hill, M.T.P.I. [F], County Architect of Lancashire, said he thought there was too much prefabrication. In his office they had largely abandoned it in favour of a modern vernacular design using traditional materials and had obtained cheaper and quicker building because the builders and operatives rapidly became familiar with it. Mr. H. Morris, President of the North-Western Federation of Building Trades Employers, agreed with this. In his experience prefabricated jobs were no faster than traditional ones and moreover they often imposed on the building owner a maintenance cost he did not expect.

There was considerable discussion about nominated sub-contractors. Mr. W. Thorpe, a Manchester builder, said he thought the client was being milked by specialists. A reduction in p.c. items would bring the

job more under the builder's control and he could then plan his labour more efficiently and thus reduce the cost of building. One difficulty was that specialist labour worked a 5-day week and builders a 5½-day week. Mr. Grenfell Baines said that p.c. items were often used by architects as a device to get estimates quickly in the design stage, which was a result of having insufficient time for design and preplanning.

'The Know-How of Modern Building' by Eric L. Bird, M.B.E., M.C. [4]

Mr. Bird defined 'information' as facts which allowed the user to create better architecture or building—whichever term was preferred. The range of information was very wide, covering all matters of design, construction, materials, equipment and craftsmanship. The volume of information contributed was enormous, but it came in so diffuse a form as to be almost unmanageable by the user. It came from between 1,000 and 2,000 sources including Government departments, professional and industrial societies and institutions, trade associations, periodicals and exhibitions. Mr. Bird briefly surveyed the principal sources of information. The Government spent £12,000,000 per annum on the Department of Scientific and Industrial Research in which Building Research, Forest Products Research, Fire Research and Fuel Research were of special interest to the building industry, though many other sections of D.S.I.R. and its grant-aided industrial research bodies also contributed. Other Government departments contributing information were the Ministries of Housing and Local Government, Health, Agriculture, Food and Fisheries and Fuel and Power.

B.R.S. was the only Government research body which was solely concerned with building; the others also served other industries. B.R.S. was primarily a research body; its information service, though important, was secondary. It covered all aspects of building from foundation to roof and, since the war, had done much useful work on lighting, heating and acoustics. Being a scientific body, it gave scientific answers to inquiries which were not always grasped by an industry which dealt with trade products. Most of the failures reported to it were due basically to bad design. Successful results were rarely reported.

The Ministry of Works had a technical information service with twelve regional officers who would inspect and advise on projects, jobs and failures. This service could well be larger. M.O.W. also held technical lectures and exhibitions and had a comprehensive technical library.

The R.I.B.A. and R.I.C.S. libraries were important sources of information, though often the required facts took a great deal of digging out. The N.F.B.T.E. was the authority on wage rates, working conditions and the statistics of the industry. Its Building Advisory Service, started in 1955 and already showing remarkable results, advised builders on office and job organisation. All three bodies advised their members on the

R.I.B.A. Standard Form of Contract, which was an agreed document.

The Building Centre (with the Scottish Building Centre) was the central source of information on types and availability of materials and equipment. The British Standards Institution with its Standards and Codes of Practice made an important contribution to information.

Some trade associations had excellent advisory services. The best were those concerned with basic materials such as timber, iron and steel, cement and concrete, the non-ferrous metals and the various fuels.

The technical press was mainly a reporting agency. Its illustration of buildings, technical articles and advertisements were much used as sources of information. He thought the industry was well served by its specialised press.

Textbooks tended to be out of date quickly, and it seemed that the ideal office information system should consist of a series of binders containing standard-sized Government and other leaflets, including manufacturers' information sheets. Such a system could be both easily indexed and kept up to date.

After mentioning a few of the many other Government departments, societies, institutions and trade organisations which contributed information on building, Mr. Bird discussed the problem of centralising and making available to all users the mass of information produced. In 1934 he had sat on a committee at the R.I.B.A. under the chairmanship of Sir Raymond Unwin at which the creation of a centralised information service for the industry had been studied. It had been decided that such a service to be efficient and available all over the country would cost at least £100,000 a year to run if only because it would have to be staffed with really competent and therefore highly paid technical officers. For other reasons he thought the idea was impracticable. More useful would be a kind of 'post-office' through which queries could be canalised. The Building Centre was prepared to act in this capacity as far as its resources permitted.

In addition, publicity about the many sources of information was much wanted. The very existence of some was quite unknown to many architects and builders. Each had its limitations—for example, Government departments and professional societies could not discuss trade products—and it was desirable to know what question to address to which body.

He felt there was a need for 'technical interpreters' between scientists and librarians on the one hand and architects and builders on the other. The two sides tended to speak different languages. At B.R.S. the creation of the architects' department a few years ago had notably improved this interpretation. He noted that the library of the Fuel Research Station was staffed by technicians.

Framing questions was very important. All information officers agreed that questioners rarely gave enough facts on which to base an accurate answer. In the words of the chief information officer of B.R.S.,

'as much care should be expended on the question as is expected in the answer'.

Dissemination of know-how should also be two-way. At present experience in the field was being made generally available only through the periodicals in a sporadic fashion.

In the discussion, Mr. Morris as a builder said he had found B.R.S. answers to inquiries difficult to follow and apply. Also he had found that many architects were not following B.R.S. advice on such things as specification of renderings and the use of mortar plasticisers. Mr. Keith Scott [4] emphasised the need for manufacturers to quote prices on trade leaflets. He also said that there was a great lack of basic cost analysis of various forms of construction. Mr. Grenfell Baines mentioned the forthcoming R.I.B.A. competition, in collaboration with the Building Centre, for manufacturers' information sheets.

'Ensuring the Best Job' by H. S. Oddie, President of the Institute of Builders

The effectiveness of all the best enterprises, said Mr. Oddie, depended on the formation of the team and in its formation the human element was all-important. The enterprise had to provide the right incentive for each member of the team to do his best in making his contribution. In the building industry the division of responsibilities was clear-cut—the architect was the creator and the builder the doer—but the systems now in use did not always allow of the best results. The architect and quantity surveyor happily collaborated up to the point of calling for tenders, after which things were liable to go wrong, beginning with the system of tendering.

There were three methods of tendering, open, selective and negotiated. Most persons in the industry agreed that the open system was bad; often it meant that the builder who had made the most mistakes in his estimate got the job. Also it let in incompetent firms or even 'men of straw'. He—Mr. Oddie—was strongly in favour of the selective, provided it was a competition between equals. There should be graded lists of builders with methods of upgrading from class to class as efficiency and experience increased. From six to eight builders should be invited to tender for each job and architects should not adhere rigidly to the same names every time. Builders preferred to remain part of a competitive system, but of a restrained, fair system. He did not fear collusion because it was incompatible with virility in the industry; natural rivalry and a competitive outlook would prevent it.

Beyond the method of tendering there were several things which would make for greater efficiency. The architect ought to obtain assurances that the materials he specified were available from manufacturers in the quantities and at the times wanted. For example, the required output of facing bricks might be booked beforehand by the architect. The same applied to nominated sub-contractors who should be notified by the architect when they would be required on the job. This meant fairly

thorough preplanning by the architect and some knowledge by him of how long each part of the job would take. With a negotiated contract this early phasing of a job was rather easier because the builder could be consulted early. But he felt that only in very large contracts could negotiated tendering be justified.

He agreed with Mr. Grenfell Baines that builders ought to be able themselves to undertake more specialist work. But the fault for excess use of specialists often lay with the architect. For example, specialists were often nominated for a reinforced concrete framework when the builder was quite capable of doing this work with his own men.

Co-ordination of the job during construction was vital to speedy and economical execution. The timing of details, which meant delivery of the drawings, ordering of materials, fabrication and assembly, all should have careful study in phasing.

Turning to constructional work, Mr. Oddie said there were today three types of building, the traditional load-bearing, the framed and the modern prefabricated. There was a great difference in unity between these types; they had quite different assembly techniques and he felt that much more careful study of each as a type was needed. Moreover, they had differing structural movements calling for such things as expansion joints, which were the architect's concern.

With new materials the builder was in the hands of the architect, who was in the hands of the manufacturer. He would like to see a system of guarantees of performance by manufacturers; this would engender confidence in the architect and builder.

As President of the Institute of Builders he wished to stress the importance of building education. Craft and technical training needed thorough reviewing and great extension. In this, the recent creation of the Board of Building Education gave great promise.

Considering the industry as a whole, he said we should have much greater respect for ourselves and this would come with more certain knowledge and greater efficiency. We should then be in a position to discipline clients and we ought to do so.

In the discussion, Mr. Allport Williams asked the opinion of builders on cases where architect and builder, working as a team, put in a joint tender. Some builders offered this form of all-in service, having architects on their staffs. He also referred to the fact that in the U.S.A. clients were charged double rates for variations they made while work was proceeding. Mr. Oddie said on occasions building owners asked builders if it was necessary to employ an architect and were obviously quite ignorant of the services which the architect rendered. As for double rates, even these he thought would not compensate the builder for the disruption and delay. Mr. Holgate, surveyor to a Manchester firm of contractors, suggested that inquiries for nominated sub-contractors should be made through the builder so as to increase his authority

over them, although the sub-contractors' tenders could go direct to the architect as heretofore. He emphasised the cost to which builders were put in preparing tenders and suggested the number invited should be commensurate with the size of the job. He also asked that a full three weeks should be allowed for preparing a tender, uninterrupted by public holidays. Mr. Haydn Smith [4], who described himself as a 'spy' from the Manchester Society of Architects, drew attention to firms of contractors who were no more than a financier's management, sub-letting all the building work. These he described as 'brass-platers'. Mr. W. Thorpe, a Manchester builder, said we should also beware of accountants taking over contracting firms because work would deteriorate in consequence. Mr. W. Hogarth, Director of the North-Western Federation of Building Trades Employers, recommended that architects—when employing a new contractor—should ask him to give a list of his previous buildings with the names of the architects. Also the architect should ask a new builder what trades and what sub-contracting work he could do with his own organisation. Mr. Thorpe saw the solution of the builder's difficulties in training and education and foresaw the day, not far distant, when foremen on large jobs would hold honours degrees with, under them, trade foremen. He drew attention to the drain-off of good foremen from building to other industries, to prevent which foremen must be accepted as part of the management.

'Materials of Today' by Eric L. Bird, M.B.E., M.C. [4]

All basic materials were available free for the taking; all costs were labour costs in extraction, fabrication, transport and installation. Because labour costs were going up all the time—whether paid by the manufacturer or the builder—they were being offset by mechanisation in both manufacture and assembly. There was still a large market for hand-made materials and handcraft assembly, but it was diminishing and might eventually sink to a small proportion of the whole building output.

Rising fuel costs were also affecting the fabrication and transport of materials. While clay bricks still held the field easily as a utility material, no one could foretell whether this position would be maintained.

Other forces influencing the materials position were the need for fuel saving in warming, the widespread demand for better living and working conditions and the discovery by chemists of new synthetic substances for which a market was sought in building. Indeed he sometimes felt that architecture was the foam on the crest of a deep-seated economic wave. Architects thought they were leading because their works were visible, but were perhaps impelled in technological and design directions by forces they could not control. For example, the classic manner had died mainly because it had ceased to be economic. There was thus a pressure for new techniques involving the use of

new materials which lent themselves to mechanisation.

Mr. Bird then briefly reviewed seven new techniques and discussed the materials used in them. Curtain walling, which resulted from demands for rapid building and saving in structural weight, presented its own special problems in such matters as thermal movement, condensation, leaks, fire-resistance and sound insulation. There was no reason why these problems should not be solved by collective action in the industry. Curtain walling was not new in principle; the Crystal Palace had been all curtain wall. There was still a wide price range; proprietary systems tended to be costly; timber curtain walling was relatively inexpensive and used a material that was familiar to builders and could be fabricated in their shops. One quantity surveyor had recently established the following prices per sq. ft. for a job, using the same panel-filling material: stainless steel 30s.; mild steel (proprietary system) 18s.; timber 12s.

Suspended ceilings were another new technique involving new materials. Their advantages were: (1) Flat with clean appearance; (2) Concealing services; (3) Demountable for access to services; (4) Thermal insulation; (5) Sunk lighting; (6) Acoustically absorbent. They could be fire-resisting, thus acting as a substitute for the encasements of steel beams with reinforced concrete. They could incorporate panel heating. A variety of materials, with differing properties, was used in this technique; some, like fibrous plaster, were old materials in new forms. Sprayed plaster finishes, using vermiculite or asbestos, were a quick, mechanised process with several advantages.

High fuel prices had introduced serious consideration of insulation. Study of U-values was barely ten years old. Numerous materials had been evolved, employing the principles of air entrainment and low thermal conductivity for use in this new technique. Weatherstripping, which in a normal house could save 30 per cent of heat losses, and double glazing were receiving attention.

Progress in bricks and blocks was proceeding. Bricks were poor insulators, involved much handling and were porous. Many continental bricks were perforated, which was a part answer to all three weaknesses. For rain exclusion the treatment of solid walls with silicones had proved effective for the few years during which experiments had been under review.

Internal partitions had several desirable properties, none of which was fully met by any one material or form of structure. The wet plastered clinker block still held the field as regards price. Other materials and methods had different advantages—and defects. Partitions were often required to be of light weight and, in some cases, demountable. There were now about 70 makes of building board on the British market.

Glass was an ageless material, now more than ever in demand, plastics having made little impression in its market. The continuous drawn sheet and polished plate

processes had made glass available in large sizes at reasonable price. Toughened glass was among the more recent developments.

Until recently we had tended to be careless with heat. Most of our existing buildings were air-leaky and had low U-values in walls and roofs. Fuel must be made to go further and preferably without labour being required. This need was being met partly by insulation and partly by evolving appliances, particularly for domestic use, with higher efficiencies. The heat pump and off-peak electrical heating were beginning to become popular.

Opening the discussion, Mr. Towler, a quantity surveyor, confirmed the figures as given for curtain walling with some of his own. He also suggested that statistics on heating costs were misleading unless allowances were made for capital costs and for the 'turn-off values' of closely controllable systems.

There followed a discussion of quality control on jobs, it being argued that without it, accurate technical data on materials was largely useless. This had special reference to screeds and renderings. Why specify exact water contents if, when the clerk of works was not present, the operatives added water to get easier workability? It was agreed that responsibility for quality rested entirely with the builder; the clerk of works as the architect's agent could not instruct the builder how to do his job but could only order him to take down work which was not up to specification.

Mr. Heppel said that curtain walling need not be proprietary but if built up of parts from different sources, ordering and co-ordination needed special care. Mr. Thorpe, speaking as a builder, strongly advocated the use of timber, particularly hardwood, for curtain walling because it was unlikely to suffer permanent injury during installation, was capable of easy adjustment on the job and its maintenance cost was low. Mr. Keith Scott pointed out that the additional rentable floor space provided by curtain walling was very great on multi-storey buildings.

Mr. Grenfell Baines quoted the case of a house where a gas-fired boiler had an annual fuel bill of £132 to £134. This had been taken out and an oil-fired boiler substituted which had an annual fuel bill of £58 to £67.

'Value for Money' by F. B. Simcock, A.R.I.C.S.

It was in the design stage, said Mr. Simcock who presented the quantity surveyor's viewpoint, that all the important and far-reaching decisions were made. The building owner had committed himself to a plan, form of construction and types of finishing; he had bought the land. The architect had done the bulk of his work; he had sorted out the specialist services; the q.s. had advised the architect on probable total cost and on the relative merits of different plans, constructions and finishes. The total cost and time of erection were known fairly accurately. The bill of quantities was ready for the builder to give a realistic price. All that was what, Mr. Simcock said, happened

in theory. What happened in practice was often a very different matter.

There were three principal reasons why jobs went out to tender before they were ready. There was the age-old failing of leaving decisions till the last minute. There was too great an emphasis on speed. But most important was the speed of technical progress. In industrial buildings the client often wanted to use the latest machines and methods and therefore deferred decisions until the last minute, after which he wanted the plant to go into production as soon as possible. The architect, also, was finding he had to rely more and more on specialists for the complex equipment used today. The q.s. was asked for information on unfamiliar constructions and materials, and the builder had to keep himself abreast of them while keeping control of an ever more complex building team.

The sooner we could persuade clients that a month extra in the design stage would save two months of construction time the better. But that month must be spent on detail design and costing, not on 'fruitless exploration of ifs and buts'.

Mr. Simcock said that the q.s. did not come into the picture soon enough. Often the first they heard of a job was a telephoned request for an approximate estimate. The next step was a request some months later for a bill of quantities in four weeks' time. The q.s. ought to be an integral member of the design team because he was the person best qualified to advise on costs. The q.s. was not called in early for several reasons. The architect hesitated to commit his client to the expense of a q.s. too early and there was a tendency among q.s.'s to treat approximate estimating as a necessary nuisance which interfered with production of bills of quantities.

There were four main types of pre-tender estimate. (1) Preliminary estimates to establish the financial possibility of the project. These were the most difficult because information was usually sketchy. They were generally worked out according to price per ft. cube or sq. ft., per place or on the storey-enclosure system. Their success depended on accurate records of price rates for previous similar jobs and on experienced 'feel' about the value of a building. (2) Later and more detailed estimates aimed at forecasting the lowest tender. The only satisfactory method of obtaining these was taking out approximate quantities. The important thing was to have 'as high a fact-fiction ratio as possible'. (3) Cost comparisons of different planning solutions. These preceded the detailed overall estimate. Taking out approximate quantities for several alternatives was impracticable on account of time even if enough information was available. Pricing at rates per sq. ft. or per cu. ft. took no account of shape. Probably the storey-enclosure system was best because it did reflect shape but experience of it was lacking. (4) Cost comparisons of alternative types of construction, finishes and services within the selected planning solution, e.g. between steel and r.c. frames, precast and in situ floors, etc. Here again

Mr. Simcock felt that taking out approximate quantities was the only satisfactory method. But there were complications such as the delivery times of structural steel and reinforcing steel. He felt the need for some basic cost data in this field.

In spite of the publicity given recently to cost analysis of 'elements' he thought it would not be the answer to all problems as some people believed. It suffered from the snags common to all price estimating systems and moreover it was dangerous to use cost information from a different building in a different part of the country by a different architect. The Ministry of Education's system of cost analysis for schools was an affair of comparisons between examples of specialised building, similar in layout. Housing, he felt, was the only other field which lent itself to such a system. Generally the system fell between two stools; it was too complex for the preliminary estimate and not accurate enough for the later stage overall estimate. He believed the real value of cost analysis of elements to be, when the basic construction of the project was decided and the amount of money available known, as a yardstick to assess the money to be spent on partitions, cladding, services, etc. It would thus help the architect and q.s. to keep close financial control in the design stage.

On the tendering stage, Mr. Simcock said the more detailed the information in the bill of quantities the more competitive tenders would be. He did not mean by that the bill should be verbose but that it should present facts, not assumptions. Also, the less p.c.'s there were in the bill, the better. He saw no reason why the names of nominated sub-contractors should not be given in the bill because the tenderer could then satisfy himself about delivery dates and details of attendance.

Discussing elemental bills in some detail, Mr. Simcock said the advantages claimed for them seemed to be based on a misconception of the function of a normal bill of quantities, which was to enable several contractors to estimate on the same basis and to provide a schedule of rates for variations and interim payments. To split up the present subdivision into trades made the estimator's job twice as hard without

any positive advantage to anyone. The q.s. could produce elemental costs from the priced bill within a couple of days if required to do so.

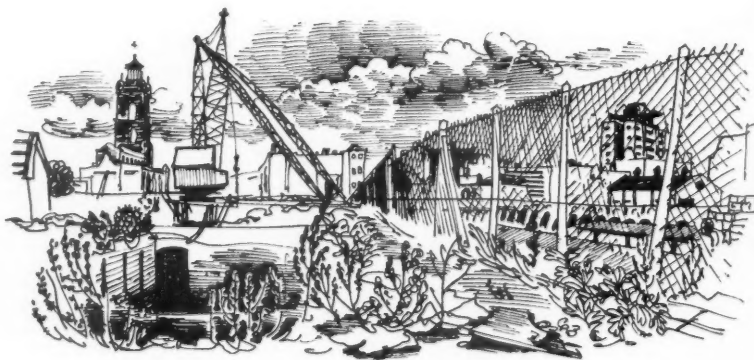
The claim that a particular item could be the more easily found in an elemental bill did not obtain in the north-west region, where bills of quantities and specifications were combined in one document in which trades were annotated under sectional headings such as foundations, floors and beams, roofs, external walls, etc.

Finally he wished to draw attention to the R.I.B.A. Contract provision that variation orders should be in writing. This was essential if financial control of the contract was to be kept. There was also a lot to be said for pre-pricing variations. Also it was as important that the q.s. should complete the final account on time as it was for the builder to complete the building on time.

In the discussion Mr. Elmsley, a quantity surveyor, said there was much lip service to preplanning but it needed implementing, which meant bringing in the q.s. at the start. He also remarked that some variations seemed to result from a debate among assistants in the architect's office. Mr. Parker, another quantity surveyor, pleaded for more use of British Standards instead of the word 'approved'. Mr. Oddie, asked for his views as a builder on elemental bills, said he had an open mind on the matter but he insisted that the bill must be intelligible to the estimator, the builder and the general foreman. However, he was consoled by the fact that the building industry was not alone in being inefficient in costing. Mr. Tomlinson, another builder, asked that 1/4th scale drawings be issued with quantities to give the builder 'the feel of the job'. He thought that pricing was influenced by the complexity of documents.

Summary by Mr. G. Grenfell Baines

The proceedings were concluded by a very able summary by Mr. Grenfell Baines of the foregoing papers and discussions in which he said that the week-end had been useful as well as pleasant. They had by no means closed the gaps in building knowledge, but they had at least stated many problems and had laid the foundations for future joint action in solving them.



Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialised branches of research and will willingly answer inquiries.

The Director, The Building Research Station, Garston, near Watford, Herts.
Telephone: Garston 4040.

The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow.
Telephone: Busby 1171.

The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks.
Telephone: Princes Risborough 101.

The Director, the British Standards Institution, 2 Park Street, London, W.1.
Telephone: Mayfair 9000.

The Director, The Building Centre, 26 Store Street, Tottenham Court Road, London, W.C.1.
Telephone: Museum 5400 (10 lines).

The Director, The Scottish Building Centre, 425-7 Sauchiehall Street, Glasgow, C.2.
Telephone: Douglas 0372.

Pyrolith Treatment for Timber. Messrs. Hickson's Timber Impregnation Company (G.B.) Ltd. recently gave a press view of their film 'Cease Fire', dealing with the use and performance of Pyrolith flame retardant timber preservation. Flame proofing products of the surface coating type may be efficient so far as they go, but from the nature of things they are normally applied *after* the fixing of the timber and therefore it is not usually possible to treat more than one surface, which may not be the first to be attacked by fire. On the other hand impregnation, being carried out before installation of the timber, reaches all surfaces and achieves a considerable depth of penetration; it does not need renewal and it cannot flake or be chipped off.

Pyrolith flame retardant preservative is introduced into timber by a vacuum/pressure process in the form of an aqueous solution. On re-drying, the water is evaporated and the Pyrolith salts remain in the wood fibre and cell cavities of the timber. When subjected to high temperatures, as would happen in the case of a fire, the salts generate water and ammonia and as the amount of water produced is greatly in excess of that normally present in timber it helps to depress the rate of heat rise for a longer period. The water vapour and ammonia gas dilute the naturally combustible gases generated and dilute the oxygen in the surrounding air. Contact of the resulting mixture of gas with a spark or flame does not produce flaming of the timber and no general burning occurs. Exposure to high temperatures for a very long period results in the formation of charcoal, itself a good insulating material which keeps away the oxygen needed for combustion. Messrs. Hickson state that the residual product of heating Pyrolith is a phosphate glass and the charcoal formed is harder and denser than that produced on untreated wood; it is a better oxygen barrier and is not so readily damaged.

Messrs. Hickson's headquarters are at Castleford, Yorkshire, their London address being 8 Buckingham Palace Gardens, S.W.1. There are 12 Pyrolith treatment plants situated throughout the country.

Gas Catering Equipment. The Gas Council has decided to publish each year a list of tested and approved gas catering appliances and List No. 1, dated October 1956, has been published.

The list will be published annually and additions issued quarterly. Space has been left at the end of each section of the list for these additions. The address of the Council is 1 Grosvenor Place, London, S.W.1.

Copper Development Association. The C.D.A. announce that they have now moved their headquarters back to London, their address being 55 South Audley Street, W.1; telephone GROsvenor 8811.

Plasterboard. The Plasterboard Industry announce that the Gypsum Building Products Association has been dissolved and a new association, to be known as the Gypsum Plasterboard Development Association, has been formed to promote the use of plasterboard in Great Britain. The new Association will take over the publication of the GYPSUM JOURNAL and the discussion of technical matters with Governments and other organisations.

Pegatex and Tidiness. Some persons seem to be able to work on an untidy desk covered with papers, memoranda and files; others find it interferes with their concentration, and for such the Pegatex unit will be an advantage. It is a wooden panel, 4 ft. by 2 ft., beaded all round and holed like an acoustic tile. Specially shaped holders fit into the holes and support trays, files, pencils, clips and even a telephone, thus keeping the desk clear for the work immediately on hand. The panel is normally screwed to a wall, but it can be arranged to clip on the desk or to stand on the floor.

Whether or not a tidy desk indicates a tidy mind may be debated; it seems to be professional etiquette for solicitors to keep their tables littered with papers, and the law is not for woolly minds. Architects may perhaps be forgiven a little lapse from pedantic orderliness; nevertheless, if they or their typists can work better with an unencumbered desk they should write to Messrs. Adaptasign Display Products, 129 Hammersmith Road, London, W.14, for details of their Pegatex units.

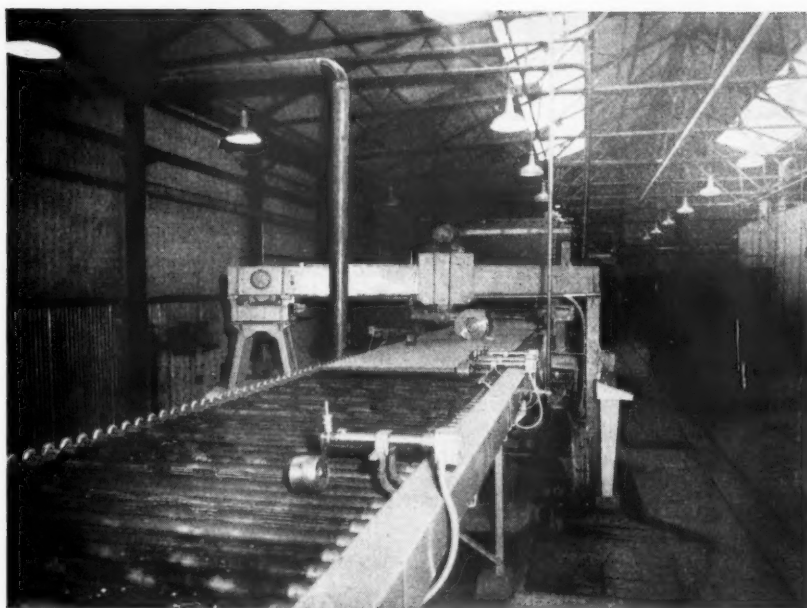
Lifting Concrete by Vacuum. In the booklet *Rubber Developments*, Volume 9 No. 4, issued by the Natural Rubber Development Board, there is an article by Mr. F. E. Jones [F] on 'Lifting Concrete with Vacuum Mats'.

In the January 1954 issue of the JOURNAL a description was given of the technique of vacuum concrete construction and the underlying idea has now been developed to enable concrete units to be lifted by a vacuum process. Mr. Jones writes, 'In this method the air between mat and unit is first evacuated and the unit is lifted by friction set up between its surface and rubber strips fixed to the shutter surface. The maximum lifting capacity produced by vacuum is of 600 lb. per sq. ft. of shutter in the horizontal plane and 400 lb. per sq. ft. in the vertical plane.'

'In order to obtain full use of this lifting



The Pegatex unit for keeping desks tidy



'Wet lap' on the Sundeala forming machine conveyor

power the surface area of the rubber strips must be capable of providing the friction required. The mats are large in relation to the area of the load to be raised and are in intimate contact with the surface; consequently, stresses and strains in the load are not so great as when the weight is confined to small areas of support. This is of great importance in precasting concrete because it is now a relatively simple matter to lift large concrete elements without first providing the usual "handling" reinforcement. In fact, plain unreinforced concrete beams and slabs are so lifted, swung into position, and the reinforcement inserted in preformed ducts for post-tensioning.

Illustrations in the booklet show a small concrete slab, a large concrete slab, a large-diameter concrete pipe, and a concrete shell roof being lifted by the process and a precast concrete shell roof being lowered into position.

The address of the Natural Rubber Development Board is Market Buildings, Mark Lane, London, E.C.3.

A New Acoustic Company. The Thermo-tank Group announce that they have formed a new company, to be known as Sound Control Ltd. 'to provide architects, designers, plant engineers and industry generally with a complete service covering all aspects of architectural acoustics. Their activities will include noise investigation and analysis; the planning, manufacture and installation of equipment designed to obtain the maximum possible noise reduction and to ensure the maximum control of transmitted sound, and the acoustic correction of auditoria and other rooms. The new company will operate from Colneside Works, West Drayton, Middlesex.'

Sundeala Automation. The Sundeala Board Company Ltd. have recently brought into operation the first fully automatic hard-board plant of its type to be erected in this country, and at a recent Press view it was seen in operation, from the unloading of the soft wood thinnings to the finished product, a process that included reducing the small logs to chips, grinding them to wood fibre under high steam pressure, refining, mixing with waterproofing material, hot pressing, heat treatment and humidification.

It was significant to see the place of operatives being taken by trip wires, little rollers and other automatic contrivances which directed the wet pulp through the various parts of the plant, backwards, forwards and sideways, until the finished board rolled off the conveyor trimmed and cut to length. In this new plant the board is subjected to a pressure almost double that previously applied.

The various kinds of Sundeala board available include standard hardboard, oil-tempered ultra hardboard, A and K quality medium hardboard, flameproofed medium hardboard, insulation board, sun-foil aluminium foil, sundek lacquered hardboard, and acoustic panels which can be had grooved in small squares instead of the more usual holes.

The London address of the company is Aldwych House, Aldwych, W.C.2.

British Standards for Housing. The British Standards Institution have published PD2548, October 1956, *Selected List of British Standards for Housing*, which was first circulated in December 1953. Since then it has been twice amended and has now again been amended to bring it up to date. The list is applicable to houses of not

more than two storeys. It is obtainable from the B.S.I., free.

L.C.C. Annual Report. The Scientific Branch of the L.C.C. Public Health Department has issued the annual report of the Scientific Adviser, Dr. S. G. Burgess, for the year 1955, being an extract from a report to the County Medical Officer of Health.

To architects the name London County Council probably suggests thoughts of bye-laws, regulations, applications and waivers rather than scientific investigation but a study of this report will give some idea of the work being done by the 'back-room boys' of the L.C.C. Among the many subjects dealt with the following are those of most interest to architects and builders, the number of samples examined being given in brackets; building materials (483); clay, sub-soils and borehole waters (1,763); fire extinguishers (3), floor oils (64), flue gases (48), insulating materials for hot water systems (18), paints, varnishes and distempers (1,608), plastics (75), smoke in air determinations (3,364).

The large number of examinations carried out in the paint section is not surprising when it is realised that the L.C.C. uses at least half a million gallons a year, and a year or two ago work was begun on forming a restricted 'Grade A' list of hard gloss paints of outstanding quality, based on a life of six to seven years for exterior paints and ten to twelve for interior paints; 53 brands were approved and 75 rejected.

Some 600 samples of paint taken from sites were examined during the year. The number of failures attributable to faults on site—usually insufficient cleaning-down or other preparations—was much greater than the number of cases where the paint itself was proved to be defective. The following are some of the problems investigated: breakdown of emulsion paints, mostly due to use in conditions of excessive heat or humidity, or on an unsatisfactory base such as old hard gloss paint or soft distemper; rusting of iron and steel building components when primed with unsuitable primers having little or no corrosion-inhibiting properties; streakiness in some flat oil paints in blue and green shades due to coagulation of the particular dye-stuffs used; wrinkling of white-lead containing paints, found to be directly related to the thickness of application of the paint; blotchiness in a yellow hard gloss paint, due to a combination of low opacity of the finishing coat combined with an excessive difference in colour between the undercoat and finish, aggravated by subsequent fading; flaking of a silicate fire-resisting paint due to excessive repainting without removal of the old paint.

In the realm of building materials the importance of the tests of samples of clays and ground water from building sites has increased with the frequent use of high blocks of flats in housing schemes. The deep concrete foundations of these flats are in contact with moist soil where sulphates naturally present in London clay can weaken the concrete, and gypsum plaster

that is often present in rubble fill on cleared sites may also be a source of unwanted sulphates; estimation of the sulphate content in the soil enables recommendations to be given regarding the appropriate cement to use to resist attack.

It is not often realised that unsatisfactory methods of storing components on the site can lead to trouble, but the L.C.C. has found cases where brown stains on the vitreous enamelling on the inside of baths, soon after installation, were rust stains due to using certain porous separators between the nested baths. Disfigurement of concrete facing slabs was found to be caused by oil and carbonaceous matter absorbed by rope used to separate the slabs during storage in the open during a lengthy winter period, and this drew attention to the difficulty of removing absorbed dirt on concrete. Moisture patches on top floor ceilings of flats were investigated and the L.C.C. reinforces the advice frequently given that roof structures incorporating water-absorbent insulating materials should be placed only in dry weather, or at least that every precaution should be taken to keep out excess moisture until the roof is made watertight. Falls of ceiling plaster were shown to be due to the use of a strong finishing coat combined with a weak render coat with consequential differential moisture and thermal movements between the two coats and the substrata.

A Safe Combination. Among the makers of safes and strongrooms there are two well-known names, the Chatwood Safe and Engineering Company and Milner's Safe Company; they have now merged into one organisation under the title Chatwood-Milner Ltd. In the provision of fireproof equipment and steel office furniture Milner's have had great experience, matched by that of Chatwood's in the construction of strongrooms and steel partitioning. To mark the merging of the two companies new showrooms were opened at 58 Holborn Viaduct, London, on 17 October. The accompanying illustration depicts a portion of the showrooms.

Dusting of Concrete Floors. The dusting of concrete floors is often the subject of inquiries regarding prevention and cure but the answers seldom go beyond mentioning preparations and techniques that should be used. But to architects who wish to know why a certain effect happens the following extract may be of interest; it is taken from an article on 'Safety and Floors', in vol. 8 No 4 of BUILDING TOPICS, published by Messrs. Tretol Ltd., of Tretol House, The Hyde, London, N.W.9.

'Cement sets by hydration, i.e. the presence of water is essential. If sufficient water only to hydrate the cement is incorporated into the mix there cannot be enough to wet all the particles when the aggregate is added. Thus more water is necessary in order to achieve workability of the mix—but the more water which is added in excess of that required for hydration, the weaker the final mass will be when dry.'

'When concrete floors are laid, an excess



Part of the new Chatwood-Milner showrooms

of water is invariably incorporated into the mix for easy working and to enable a fine, smooth trowelled finish to be obtained more easily. This excess water, in addition to making the hardened mass weaker, provides the means by which the finer cement particles in the mix rise to the surface and the larger particles sink to the bottom. The water on the surface of the trowelled mix obviously dries more quickly than that down below and, where curing methods are not employed, this drying out occurs before the cement hydrates. Thus, cement powder which has had no opportunity to react chemically with the water is present on the surface and it is easily removed as dust. Below the surface is a weak layer of sand and hardened cement, weak because the ration of cement to sand has been affected by the travelling of some cement powder to the surface.

'These conditions are extreme, but this process of events serves to outline the cause of dusting—even if the floor were laid perfectly, water would still dry off on the surface more quickly than the cement could react with it, so that the tendency for a weaker upper surface would still crop up.'

Building Research Station. The telephone number of the B.R.S. has been changed to Garston (Herts) 4040.

British Standards Recently Published. B.S. 1347: 1956. **Architects', Engineers' and Surveyors' Boxwood Scales.** In this revised edition the scales used by the three professions are given in one publication and all the information for each scale is given in one item of a table. This has made possible the allocation of a reference number to each scale, thus eliminating misunderstandings and misinterpretations of orders.

The Standard lists 94 scales in common use and full details of the figuring for each are given in a table. The differences between open and fully divided scales and foot and fractional foot and inch and fractional inch scales are illustrated. Figures showing the Armstrong and Quantity Surveyors' scales are also included. Price 5s.

B.S. 1304: 1956. 'Ready-to-fit' Thermal Insulating Materials for Hot and Cold Water Supply and Central Heating Installations for Small Dwellings. This is a revised Standard and relates to thermal insulating materials suitable for small dwellings where the water heater is rated at not more than 55,000 B.t.u./h. Casings built up and filled in situ are not included.

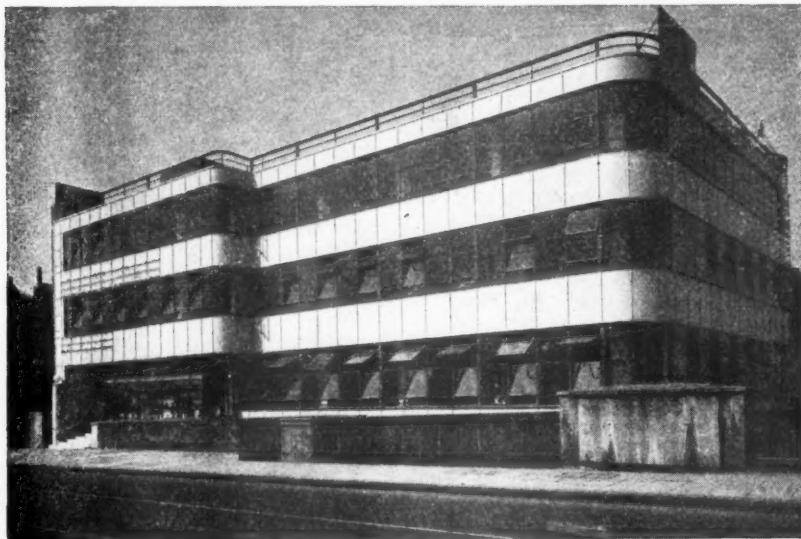
Data on the size of cylinders, tanks and cisterns have been brought into line with the revised editions of B.S. 417 and 699. Recommendations are given on the successful application of insulating materials and on precautions to be taken to minimise troubles due to frost. Price 3s.

B.S. 602: 1956. Lead Pipes for other than Chemical Purposes. B.S. 1085: 1956. **Lead Pipes for other than Chemical Purposes (Silver-copper-lead alloy).**

These two Standards have been revised and are now included under one cover, as pipes complying with both Standards mainly serve the same applications for other than chemical purposes.

In the revised B.S. 602 a third composition has been added, and for some applications lighter weight pipes are permitted, necessitating the introduction of additional tables; for similar reasons additional tables have been included in the revised B.S. 1085, wherein a slight amendment to the composition has been made. Price 6s. for the combined Standard.

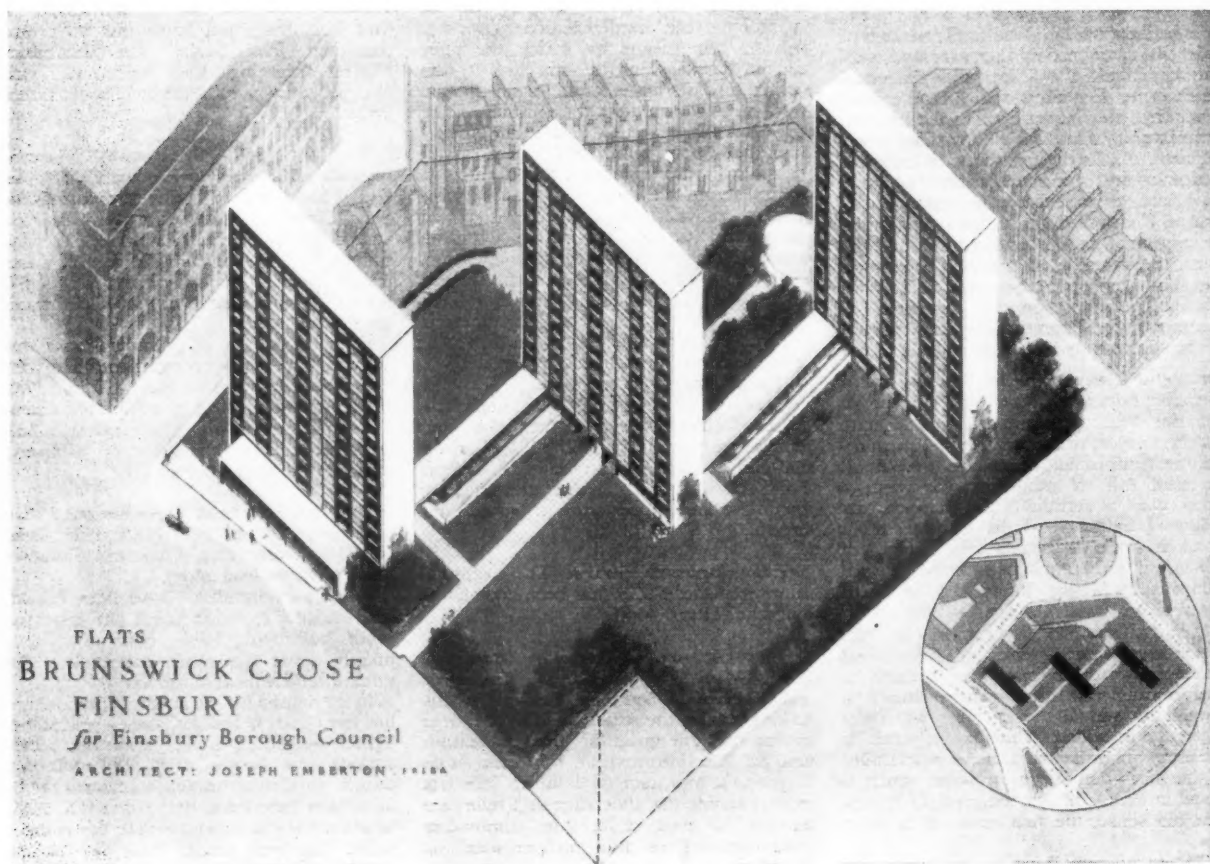
Recent Designs of the late Joseph Emberton [F]



Foreshadowing post-war design, Universal House, Southwark, 1933. Architect: Joseph Emberton

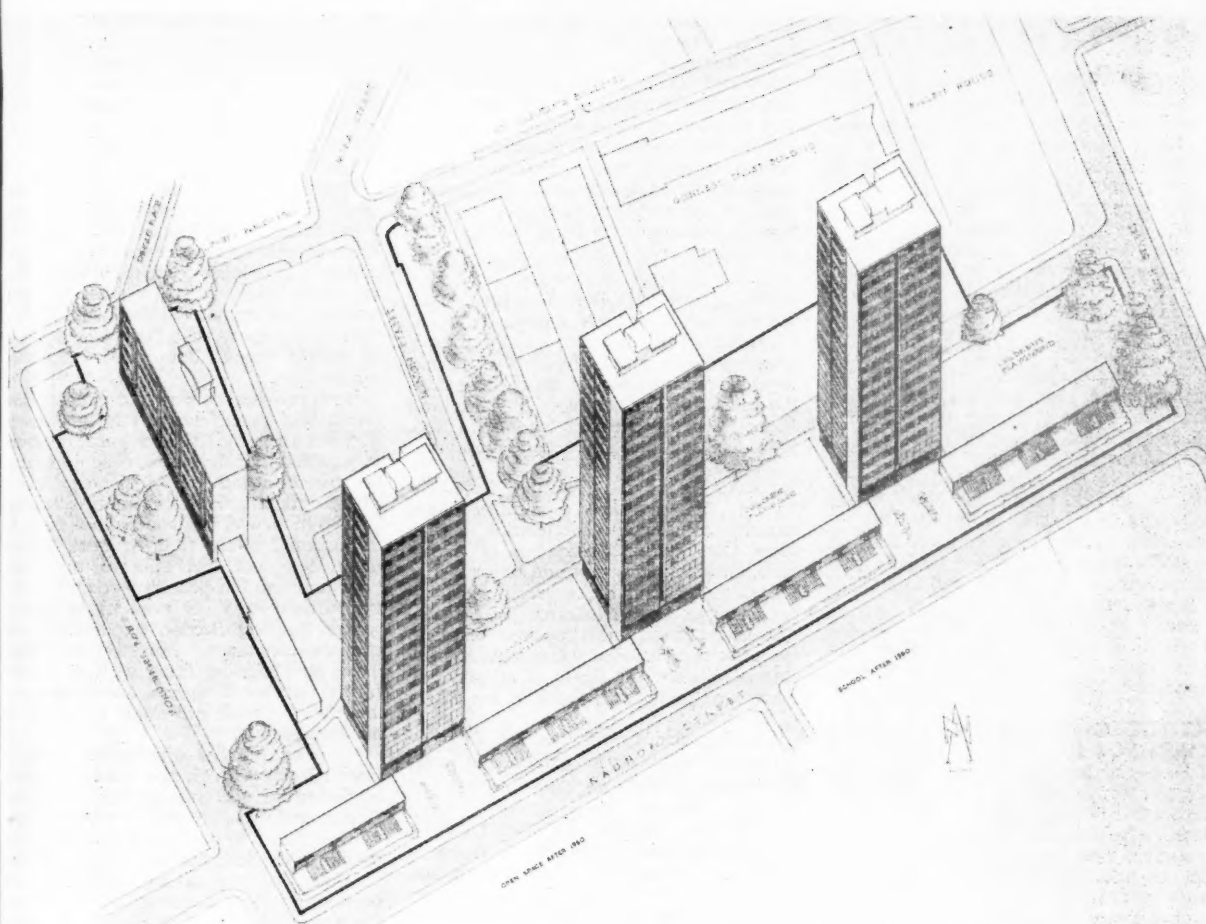
THE LATE JOSEPH EMBERTON [F] enriched the street architecture of London with two of the best buildings erected between the wars, in Messrs. Simpson's shop in Piccadilly and the premises of The Gramophone Company in Oxford Street, both of which may be considered unlucky to have missed being awarded Bronze Medals. Less familiar were the post-war designs and for this reason two schemes which were at the drawing-board stage at the time of Mr. Emberton's death are illustrated here, together with a note by one of his collaborators.

Trained in the last lingering traditions of a classical conception of architecture, Joseph Emberton had early become a protagonist of functional modernism as we experienced it between the wars. Some of his buildings of that time were, and some still are, landmarks in the development of modern architecture. Yet until his last days he retained a profound respect, and indeed a deep love for the harmony of geometrical relationships of plans and elevations. Many hours were spent in attempts to regularise elevations to patterns in which the proportions of the parts developed geometrically out of the propor-



ched
two
the
dilly
om-
may
being
were
two
board
death
e by

s of
ture,
e a
n as
ome
and
lop-
his
pect,
ony
and
e in
erns
parts
por-



Axonometric drawing of Galway Street scheme, with plan of typical floor

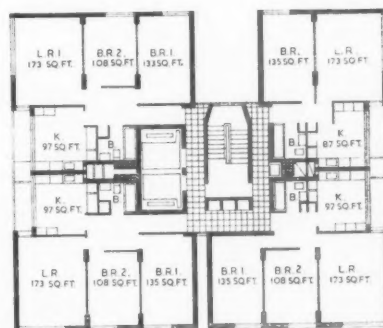
tions of the whole building. Le Corbusier's *Modulor* used to lie on his desk.

In his later years his mind was more and more occupied by the tendency towards tall buildings: and he really meant tall. An early vision, now perhaps 20 years old, remained on the wall of his study: Saint Paul's surrounded by blocks well exceeding the dome of the cathedral in height, but at a distance which allowed each, the old and the new, a life of its own without mutual interference.

This, indeed, was the main idea in his tendency towards higher and higher buildings: to put sufficient space between them to preserve in each its own strongly personal character without conflict with others, and to let each live the life of its own time. He was very much impressed when returning from a journey to Italy by the way in which new buildings were going up right in the middle of ancient cities, separated from the old buildings by space as they were separated from them by time, and how thus the new age grew out of the old without detriment to the character of either.

A further consideration foremost in his mind was the thought that tall blocks widely spaced would solve many other problems. He used to say that by one simple bye-law restricting the ground floor of each new building to one-quarter of the area of its typical floors above, the problem of traffic and parking would be solved simply by the progress of time: as each new building went up more space was created and as London grew it would automatically grow out of its congestion. In all this he was much encouraged by the conviction that people evidently liked to live in high blocks, as seemed to be borne out by the fact that the flats in his first tall housing scheme, the Stafford Cripps Estate of 12 floors, were almost literally let from the top down.

His later schemes stepped up in height from the 12 floors of the Stafford Cripps Estate to the 15 (later reduced to 14) of Brunswick Close, and to the 18 of Galway Street. The fact that the steps were not bigger did not lie with him. In fact, although the oldest in his office, he was the least afraid of raising the height. 'If the height



of this block could only be raised to X storeys' one might hesitatingly say to him; he would reply, 'Well, make it X storeys'.

Joseph Emberton was happy in having clients who encouraged his tendencies; and who encouraged his collaborators to carry on with his latest design, the 18 storey point blocks of Galway Street, even after he left us.

Practice Notes

Edited by Charles Woodward [A]

IN PARLIAMENT. Local Government. Buildings (Architectural and Historic Interest). Dr. Stross asked the Minister of Housing and Local Government for how many local authority districts a list of buildings of special architectural or historic interest has still to be issued; of these, how many have still to be surveyed; and when it is expected the work will be completed throughout the country.

The Minister of Housing and Local Government (Mr. Duncan Sandys): Out of 1,480 local authorities' areas, 1,071 have been surveyed. Lists, including interim lists, have been issued in respect of 1,177 areas. I cannot forecast when this work will be completed.

Dr. Stross: While thanking the Minister for his answer, may I ask him whether he would agree that, as so much of the work has already been done, it really is time it was completed? Will he give what encouragement he possibly can to see that it is expedited?

Mr. Sandys: Yes, within reason; but there is, of course, a fearful amount of work involved in listing, and it does inevitably take time.

SCHEDULES OF CHARGES AND HIRE RATES FOR DAYWORK. Increased Cost of Fuel—Surcharge on Haulage Rates. The London Master Builders' Association and the Southern Counties and Eastern Federations of Building Trades Employers announce that under their Schedule of Charges and Hire Rates for Daywork for use with the National Schedules of Daywork Charges there will be a temporary increase in haulage rates (Schedule O) from the week commencing 31 December 1956.

This will take the form of a surcharge of 5 per cent on rates published from time to time, and will increase these rates accordingly.

This surcharge will continue until further notice, but the situation will be reviewed periodically and due notice given of any change.

ROYAL INSTITUTION OF CHARTERED SURVEYORS. Measurement of Terrazzo Work. The Standing Joint Committee for the Standard Method of Measurement have issued a supplement for guidance in the measurement of in situ and precast terrazzo work. The method of measurement has been agreed in collaboration with the National Federation of Terrazzo Mosaic Specialists.

The supplement is obtainable from the Institution, price 1s. 6d. post free.

CHIEF INSPECTOR OF FACTORIES' REPORT FOR 1955. This Report has now been published and is obtainable at H.M. Stationery Office, price 9s. net.

The Report states that because the building of single-storey factories in the Midlands was fast producing a state of

affairs where there would be no room for further industrial development, the Midland Regional Board for Industry had sponsored research into the relative costs and merits of various types of both single and multi-storey factory premises. It was hoped that some standardisation of a few definite types of factory buildings would result, for which there would be adequate data as to building materials, heating, lighting, ventilation, welfare facilities and, not least important, costs.

RETENTION MONEY. In view of the general restrictions on credit, the Joint Consultative Committee of Architects, Quantity Surveyors and Builders wish again to draw the attention of all concerned to the following Practice Note on Retention Money which was issued by the R.I.B.A. Practice Committee in December last year:

R.I.B.A. Form of Contract. Retention Money. The Practice Committee have recently considered a suggestion of the Joint Consultative Committee of Architects, Quantity Surveyors and Builders that in the case of reputable contractors chosen, for example, from a selected list for tendering, architects may consider reducing the amount of certified value retained substantially below the figure of 10 per cent mentioned in the Appendix to the Form of Contract.

The Practice Committee are fully in agreement with this suggestion and commend it to members.

NATIONAL JOINT COUNCIL FOR THE BUILDING INDUSTRY. Holidays with Pay Scheme. On a report from the parties to the Building and Civil Engineering Annual and Public Holidays Schemes, the National Joint Council on 25 October 1956 decided to record the following values of holiday stamps as from the dates in April next:—

Annual Holidays with Pay Scheme. From the calendar week beginning 1 April 1957:

Male Operatives (Craftsmen and Labourers) over 18	7s. 6d. per week
Operatives under 18 years of age and Female Operatives	6s. 0d. per week

Public Holidays with Pay Scheme. From the calendar week beginning on 22 April 1957:—

Male Operatives (Craftsmen and Labourers) over 18	3s. 9d. per week
Operatives under 18 years of age and Female Operatives	3s. 0d. per week

THE CREMATION ACT 1902. The Cremation Society has been in correspondence with the Ministry of Housing and Local Government regarding the interpretation of Section 5 of the Cremation Act 1902.

The construction which has lately been placed upon the word 'crematorium' in

Section 5, whereby the 200 yds. and the 50 yds. limitations are made to include portions of a cremation undertaking other than the actual crematorium buildings, obstructs the progress of cremation according to a Resolution passed by the Cremation Society, and sent to the Ministry.

The Ministry's reply was as follows. — 'The Department has given this matter very careful thought, realising full well that a too extensive application of the distance limits in that Section might result in difficulties in providing crematoria where they are needed, and also in more land being set aside for crematoria than would otherwise be necessary. The Department would of course regard both these results as undesirable.

'In approving the sites and plans of new crematoria under Section 1 of the Cremation Act 1952, the Minister must, however, be satisfied that the statutory requirements are complied with, and the interpretation of these requirements is primarily a matter of law. In view of the definition of the term in Section 2 of the 1902 Act, the Department does not feel able to hold that "crematorium" in Section 5 refers only to the furnace room, or even to the crematorium building. Section 2 of the Act says that the expression "crematorium" "shall mean any building fitted with appliances for the purpose of burning human remains, and shall include everything incidental or ancillary thereto".

'It is agreed that ornamental grounds, trees, roadways and lodges can be regarded as falling outside this definition; but the Department feels obliged to take the view that Section 5 applies to the crematorium buildings, chapels, and parts of the grounds used for the disposal of ashes and that portions of the grounds of a crematorium not specifically set apart for the disposal of ashes are outside the definition of "ancillary" in Section 2 of the Cremation Act 1902, and, conversely, that only such portions of the grounds as are definitely set apart for this purpose would be deemed to fall within the definition.'

INQUIRY INTO THE LAW DEALING WITH TRADE EFFLUENTS. Sir Frederick Armer, K.B.E., C.B.E., M.C., Chairman of the Board of Control and formerly Deputy Secretary, Ministry of Health, has been appointed Chairman of the sub-committee set up by the Central Advisory Water Committee to inquire into the law dealing with trade effluents.

Any person or body wishing to give evidence to the sub-committee should send a memorandum to Mr. H. R. Pollitzer, Secretary, Trade Effluent Sub-Committee, at the Ministry of Housing and Local Government, Whitehall, S.W.1.

The committee has the following terms of reference:—

(1) To examine existing legislation and the operation of the common law respecting the disposal from trade premises of liquid effluents (including solids in suspension), not being radioactive effluents; to examine the problems, including financial problems, arising therefrom; to consider whether

farm or any other premises should be designated as trade premises for the purposes of disposal of such effluents; and to make recommendations.

(2) To examine the position respecting Section 8 (2) of the Rivers (Prevention of Pollution) Act 1951 (which requires the consent of the Minister before a River Board may take proceedings under Section 2 or Section 3 of that Act) and to advise whether it is desirable to suggest the extension of the operation of that provision beyond the term of seven years from the passing of the Act and, if so, for what further period.

CLEAN AIR ACT 1956. Provisions in Force from 31 December 1956. An Order laid before Parliament Friday 21 December by the Minister of Housing and Local Government, Mr. Duncan Sandys, named the 31 December as the day on which certain provisions of the Clean Air Act 1956 came into operation. These include the provisions enabling local authorities to create smoke control areas, in which the emission of smoke from buildings will be an offence. Local authorities will be able to create these areas by Orders which will be subject to confirmation by the Minister.

Other provisions of the Act which came into force on 31 December deal with:—

New furnaces. All new furnaces, other than small domestic boilers, must be, so far as practicable, smokeless. Notice of intention to install such a furnace must be given to the local authority. (Section 3.)

Smoke measurement. The Minister is empowered to make Regulations requiring furnaces to be fitted with smoke density meters. (Section 4.)

Height of chimneys. The height of new chimneys, other than those of houses, shops and offices, will require approval by the local authority. (Section 10.)

Spoilbanks. Owners of colliery spoilbanks must employ all practicable means for preventing combustion of refuse, and for preventing or minimising the emission of smoke and fumes from the refuse. (Section 18.)

Byelaws. Local authorities may make building byelaws requiring the provision in new buildings of such arrangements for heating and cooking as are calculated to prevent, so far as practicable, the emission of smoke. (Section 24.)

A similar Order has been made by the Secretary of State for Scotland.

The remaining provisions of the Clean Air Act, which deal with the prohibition of dark smoke and the reduction of grit and dust from industry, will be brought into operation at a later date.

LAW CASE

Truchell v. Stock. Whether footings of a house are included in a conveyance. Court of Appeal. 5 December 1956. This was an appeal by the plaintiff from the judgment of the County Court dismissing his claim against the defendant for an injunction and trespass.

The defendant had erected a shed a wall of which was built within half an inch of the wall of the plaintiff's house. This prevented the lower part of a window in the plaintiff's house from being opened and obstructed the light.

The County Court Judge held that the land concerned was not part of the plaintiff's property and dismissed the claim. He found that the wall of the defendant's shed impinged on the protruding foundations or footings of the plaintiff's house, but that the footings, according to the plan attached to the conveyance, had not been conveyed to the plaintiff.

It was submitted on behalf of the plaintiff that whatever the plan showed, when the house was conveyed to the purchaser it included everything that made up the fabric of the house including the footings. If the conveyance expressly conveyed the dwelling-house, then nothing in the plan could alter what was conveyed. Anything that was part of the house passed with it.

For the defendant it was submitted that the question was whether the boundary of the land was the wall of the plaintiff's house, or the 4½-in. projection of the footings, or the line vertical from the eaves, which extended some 17 in. from the wall. The conveyance gave an imperfect description of what was conveyed and one had to turn to the plan for real precision, as the land was there delineated. Even if the footings and eaves went with the plaintiff's house, the defendant was entitled to the air space in between those features.

In giving judgment the Court of Appeal said that the wall put up by the defendant was actually on the footings of the plaintiff's house. The land or property belonging to the plaintiff depended on the conveyance. The schedule in the conveyance merely referred to the dwelling-house. The Court thought that that included all parts of the plaintiff's house such as eaves, footings and any projections. The plan referred to showed that the land conveyed did not extend as far as the outer side of the footings but only showed the boundary of the wall of the house at ground level. The County Court Judge had held that the footings and eaves did not belong to the plaintiff, but, on authority, the Court was satisfied that the conveyance of the house to the plaintiff included the eaves and the footings, but not the air space between them. The defendant had built the wall of the shed on the footings without the consent of the plaintiff. That was clear trespass. The County Court Judge was right in holding that if there was trespass an injunction and damages should be awarded. The wall of the shed was very deleterious and damaging to the wall of the plaintiff's house.

The appeal was allowed with costs of both hearings and an order was made for the wall of the shed and other material to be removed within six weeks and damages of £50 awarded. (THE ESTATES GAZETTE, 15 December 1956.)

Correspondence

REPORT ON HIGH DENSITY HOUSING SCHEMES IN EUROPE

The Editor, R.I.B.A. Journal

SIR,—In his admirable report, the second part, paragraph 11, Mr. R. A. Jensen says that he can see no reason why back-to-back building should preclude flats being planned in point blocks with a common party wall, provided that they have two outside walls. This has been carried out most successfully, notably in Denmark. The aim should be to get if possible six flats per floor entered from a common staircase and lift hall.

At Coldharbour, Eltham, a housing estate designed and built by the Woolwich Borough Council, there is such a point block now completed and in process of being occupied. It is of seven storeys on a three-arm plan, six flats on each floor of one and two bedroom accommodations served from a common entrance hall with staircase and lift, giving 42 flats in all. A common 11 in. hollow brick party wall divides the three arms into six flats, each flat also having two 11 in. hollow brick external walls.

The living rooms face south, east and west and are provided with private balconies and solid fuel open fires.

Each tenant has a store on his respective floor, in some cases adjacent to the flat but arranged under a covered balcony. This obviates the unsightly appearance of a multiplicity of sheds usually placed somewhere inconveniently in the surrounding grounds.

Your faithfully,

E. H. H. WILLIAMS [4]

MICHAEL VENTRIS MEMORIAL FUND

DEAR SIR,—Michael Ventris died at the age of 34 on 6 September 1956 in a motor accident.¹ His discovery that the Linear B texts of Knossos, Pylos, Mycenae and other sites were Greek ranks as one of the most brilliant achievements of scholarship and has been internationally acclaimed a feat of the same order as that of Champollion in deciphering the Egyptian hieroglyphs. The discoverer was awarded the Order of the British Empire by her Majesty the Queen, an Honorary Doctorate by the University of Uppsala, and an Honorary Research Associateship by University College London. The brilliance of this discovery is matched by its importance and it will take years to work out the consequences of the new knowledge which proves that Mycenaean civilisation was Greek-speaking, gives us texts contemporary with and comparable with texts from the adjoining civilisations of Egypt and the near east and shows us the state of the Greek language half a millennium before our earliest Greek literature.

Michael Ventris was trained and practised as an architect. To his profession he brought the same analytical brilliance that dis-

¹ See October JOURNAL, p. 514.

tinguished him as a classical scholar, and there lay ahead of him a career of exceptional promise. He had an uncanny gift for languages ancient and modern, and was fired to study the Linear B texts by a lecture given by Sir Arthur Evans which he heard when he was a schoolboy at Stowe. He was moreover a person of quite peculiar charm who was instantaneously loved by all with whom he came into contact.

We feel that many people will wish to join us in forming some memorial to his genius and personality. We hope that it may be possible to found a Michael Ventris memorial award or studentship, which would be open both to post-graduate students who were working on subjects connected with Mycenaean civilisation and to students of architecture, because we feel that thus his two main interests would be represented. The fund would be used either for studentships or for grants and would be administered by a trust representing the two interests. Contributions should be made out to the Michael Ventris Memorial Fund, and sent either to the Secretary, The Architectural Association, 34/36 Bedford Square, London, W.C.1, or to the Secretary, Institute of Classical Studies, 50 Bedford Square, London, W.C.1.

Yours faithfully,

R. D. BARNETT, *Keeper of Western Asiatic Antiquities, British Museum*; JOHN CHADWICK, *Lecturer in Classics, Cambridge University*; KENNETH M. B. CROSS, *President R.I.B.A.*; IFOR EVANS, *Provost of University College, London*; A. W. GOMME, *President Hellenic Society*; GONTRAN GOULDEN, *President Architectural Association*; SINCLAIR HOOD, *Director British School at Athens*; R. J. H. JENKINS, *Chairman Managing Committee, British School at Athens*; R. FURNEAUX JORDAN; JOHN F. LOCKWOOD, *Vice-Chancellor University of London*; L. R. PALMER, *Professor of Comparative Philology, Oxford University*; N. PEVSNER, *Professor of History of Art, Birkbeck College, London University*; ERIC V. REYNOLDS, *Headmaster of Stowe School*; TORGNY SEGERSTEDT, *Rector of Uppsala University*; E. G. TURNER, *Director Institute of Classical Studies*; A. J. B. WACE, *Emeritus Professor of Classical Archaeology, Cambridge University*; T. B. L. WEBSTER, *Professor of Greek, University College, London University*.

GREAT MAYTHAM

DEAR SIR,—The Minister of Housing and Local Government is to be praised for supporting the preservation of this great and beautiful house in preference to its demolition and replacement by a number of little contemporary, or perhaps pseudo-contemporary, villas.

As I gave evidence at the public enquiry on behalf of the Committee for the Preservation of Rural Kent and the Society for the Preservation of Ancient Buildings, alongside the Kent County and Tenterden District Councils, I must again oppose Mr. Anns and his curious reasons for demolition.

The building is in good condition and

could very easily be converted to flats, maisonettes or practically any form of school or institution and this without injuring its external character, as also at Holy Trinity, Marylebone. Further, as a collection of usefully proportioned and arranged rooms, it can be purchased for a tenth of its present day basic constructional value. As for 'reasonable railway stations', I suggest Mr. Anns addresses his observation to Mr. Burring, the Station Master at Cranbrook.

There is no reason to demolish a fine building because it is not a 'period piece' and is said not to conform in detail to a 'prototype' nor is of our contemporary persuasion. Nonconformity in architecture is no automatic indictment nor conformity the only precedent to beauty.

Further, Lutyens' work (of which this is one of only two examples in Kent) is approximately the last of an unique school of architects which began in about 1850 to dismantle conformity to the styles, thus setting a new freedom in design. But unhappily, since their work is of too recent interest and date to arouse wide public objection when threatened by demolition, much of it has already silently disappeared and with it a vital link in architectural history. It is ironic that Mr. Anns seems to herald, in support of demolition, the return of perhaps another stylism.

Great Maytham is a beautiful country building and has a curious vernacular air about its severe classicism—a mystic quality for which Lutyens was so famous. It stands as a landmark in the lovely Rother Valley and there are many in Kent who like it and want it to stay.

Yours faithfully,

KENNETH G. MILLER [4]

DEAR SIR,—It perhaps would hardly become a Student to cross swords with a senior Fellow of the Institute on the merits of one of the most distinguished Gold Medallists if the assumed views of the younger generation had not been specifically stated, in the letter on Great Maytham by Mr. Anns in the December issue of the JOURNAL, to be antipathetic to, or indeed in direct opposition to, the work of Sir Edwin Lutyens.

Of course one can only speak of one's own contemporaries in one's own school (the A.A., and that a year or so ago).

But to us, the modern movement in architecture has been won, and not in the 'fifties either, not even perhaps in the 'thirties, but in the 'twenties when most of the great monuments were built. To us the use of Tudor or Georgian styles is so obviously wrong as to be not worth even considering—to us, indeed, the use of the 'contemporary' style is little better. But that does not mean that we would automatically reject as worthless buildings that were built in the Tudor or Georgian style even after some of the masterpieces of modern architecture were built. It is essential to be adult about this thing. The point about Great Maytham, as indeed about most Lutyens houses, is not that it uses the latest materials in the most economical

manner, nor indeed that it is planned with the minimum circulation space, but rather that, on its own terms and in its own class, it is as supreme an example of placing on the site, moulded form, classical proportioning, romantic space-flow planning, grandeur with reticence, and sensitive use of material, as is to be found in England in the architecture of any period—and indeed, since these are largely English architectural virtues, in the architecture of the world.

That, sir, is why I, at least, would like to see Great Maytham preserved.

Yours faithfully,

RODERICK GRADIDGE [Student]

DEAR SIR,—I am, of course, wishing for no further publicity on this matter, but I feel that it is only right to point out that no offer to rent or purchase this building has actually been made (up to December 23).

It was mentioned at the enquiry, but it never matured.

Further, the gate house was to be maintained and converted for domestic use, as also the small 18th-century stable house, the stables and the quite lovely period walled garden.

Great Maytham can never be an example of contemporary architecture of any period, and to my mind it will now be somebody's headache for a very long time.

Yours faithfully,

KENNETH ANNS [F]

SIZE OF MODULAR COMPONENT

DEAR SIR,—I trust Mr. Bruce Martin will forgive the following attempt to summarise in the form of a parable the major part of his interesting paper on 'The Size of a Modular Component'.

Yours faithfully,

DAVID MORRISON [4]

HIAWATHA BUILDS HIS TEEPEE!

*Hz, to build his moduled wigwam,
Gathered to him his components,
Units, Sections, and Assemblies:
Called collectively Components.
Chose his modular dimension,
Gridded out and planned his wigwam.
Made the size of his components
Smaller than the size of module;
Made the chosen size of module
More than that of the components.
Saying 'If the module's smaller
Than the size of the components
Then the series of components
Slowly creeps outside the wigwam.
But with modular dimensions
Slightly more than the components
They will stay inside the wigwam;
Stay with me inside my wigwam
Tolerating one another
In an ordered state of mutual
Modular co-ordination.'*

Through the agency of E. P.

JOURNAL COVERS

DEAR SIR,—I would suggest that more consideration be given to the choice of pictures used on the cover of the R.I.B.A. JOURNAL. The monstrosity shown on the October cover and heard described as an 'inverted pyramid on a mountain' brings ridicule to architecture generally.

There is such a wealth of interesting and important buildings, pleasing to the eye, which could be shown on the cover of such a widely circulated journal, and everything possible should be done by members of the profession to raise the standard of architecture in the eyes of the public.

Such a picture as this, apart from being entirely out of place, can only have an adverse effect on the profession.

Yours faithfully,

A. GARLICK (4)

I.U.A. Notes

International Conference for Students of Architecture. We understand that the 4th International Conference for Students of Architecture will take place in Copenhagen 5-12 August 1957. This conference follows on those held in Rome, London and Paris. A preparatory meeting will be held in February in Copenhagen. A plan for the formation of an international organisation of students of architecture will be discussed.

It will be remembered that the I.U.A. has offered to help the students if they so wish.

The 2nd Congress of the Plastic Arts. This Congress, organised by the International Association of Plastic Arts, will be held at Dubrovnik, Yugoslavia, 23-28 September 1957. The I.U.A. will be represented by two observers.

International Congress Announcements. We give below the dates of various international meetings planned for 1957-8.

3-7 June 1957, The International Hospital Federation, 10th Congress—Lisbon.
May 1958, Pen Club International Congress—Brussels.
August 1958, The International Federation of Landscape Architects Congress—Washington.

UNESCO. The United Nations Educational, Scientific and Cultural Organisation celebrates its 10th anniversary this year. It will be remembered that this organisation started active work in November 1946 after ratification by twenty governments. The I.U.A., whose relations with UNESCO are becoming more and more cordial, hopes that this great organisation will be enabled to carry on its mission with increasing authority and success.

Regulations for International Architectural and Town Planning Competitions. The Director-General of UNESCO is presenting to a conference in New Delhi some recommendations for the regularising of international architectural and town

planning competitions. These recommendations were prepared in collaboration with the I.U.A. and took account of the observations of the various member states of UNESCO. The recommendations embody the following:—

1. Principles relating to the preparation of competitions: the necessity for defining the object of the competition, consultation with the I.U.A. on the drawing up of technical programmes and conditions, equality of treatment for all competitors and the need for international publicity.

2. Principles relating to the judging of competitions: the need for a competent jury, and the international character of the jury.

3. Principles relating to the procedure following the judging of competitions: the importance of prizes relating to the importance of the subject and to the amount of work done by the competitors, guarantees to the winner about the execution of his scheme; copyright, protection of winning designs and those of all entrants; undertakings to make the results of the competition known and to exhibit entries; good offices of the I.U.A. for arbitration in the event of dispute.

U.N. Economic Commission for Europe

THE HOUSING COMMITTEE of the United Nations Economic Commission for Europe (ECE) has issued information on its new programme of work for future sessions, which will have one main theme for discussion. The summer session of 1957 will be devoted to a comprehensive examination of Government policies in relation to industrialisation of house building, and the autumn session will discuss the main problems of housing finance. For the better concentration of its efforts on major problems in housing and building the committee has simplified its organisational structure. Two working parties, one on development of housing policies and the other on cost of building, have been abolished and study of the subjects will be continued by expert rapporteurs.

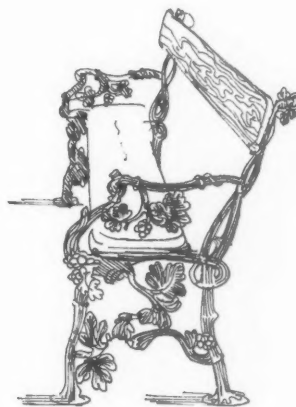
The working party on development of housing policies, set up in May 1948, had as one of its first post-war efforts the focusing of attention on the enormous scale of housing needs and the consequent problems arising in the building industry. This was followed more recently by an attempt to draw up a more accurate balance sheet of the European housing situation on the basis of post-war housing and population census material, in the report *The European Housing Situation*, published early in 1956. In the early years there was a substantial exchange of information on economies in the use and substitution of building material, of which

examples appeared in *The European Housing Problem* and in a report, *Economies in the Use of Timber in Building*, published in 1949.

Two conferences, one on building documentation, in 1949, and the other on building research, in 1950, led to the creation of the International Council for Building Research, Studies and Documentation (CIB) in 1953. This year a number of building research and documentation organisations from Eastern European countries joined, giving the organisation an all-European representation.

In an endeavour to throw some light on the measurement of building costs and productivity an attempt was made by rapporteurs to carry out a pilot study on the use of man-hours on site in a number of European countries, using questionnaires, but the chief result was not to be found in the analysis of the figures but rather in a lack of basic information available, and the working party recommended that an attempt should be made to establish and provide quantitative information on the principal elements making up house-building costs. The part which governments can play in helping to reduce these costs has been kept under review and *The Cost of House Construction* was published in May 1953, being a preliminary study of measures to reduce housing costs and of the development of the building industry.

With the aid of rapporteurs the working party on cost of building has also carried out a number of specific and partly technical inquiries on different aspects of the problem of reducing building costs. A number of them derive from the recommendations in *The Cost of House Construction*. Subsequently the CIB took over some detailed work, notably on methods of defining the housing needs of a family and strength, stability and safety factors. Work has continued on building codes and regulations, mechanisation and prefabrication, and contract practices in building. An important inquiry resulted in the publication, in 1951, of a report on the utilisation of space.



Christmas Lectures

FROM THE MOMENT Mr. George Grenfell Baines made his dramatic entry on crutches it was obvious that his lectures were going to be a great success, even though one young member of the audience sighed with audible disappointment that the broken leg had been sustained in a prosaic fall on an icy road going home from the office one night, and not skiing on Alpine slopes. When Mr. Baines followed up this entry with the introduction, borrowed from a well-known programme for very young people on the B.B.C., 'Hallo, are you all sitting comfortably?' (he himself so obviously wasn't), and then proceeded to show two photographs of himself, as lecturing architect, when young—one a family group, one of his school cricket team—the reception was riotous.

From then on he held his audience rapt, whether he was talking about space and how the architect delights in it and uses it—illustrated, as his talk was illustrated throughout, with superb slides; telling the story of the collapse of the tower of Beauvais and the building of the Leaning Tower of Pisa; equating certain characteristics of music and architecture, with slides and gramophone records—a bold experiment this; building an impressive structure in four minutes flat with toy bricks and telling the 'detective story' of how the cause of rot in the tower he was portraying was discovered; recounting the dramatic story of himself anxiously awaiting the announcement of a competition result and receiving on the appointed day a telegram—telling him an engineer could deliver the pipes he wanted; or showing various light-hearted slides of the out-of-office-hours activities of some architect friends—including an endearing but rather puzzling one of the President of the Architectural Association wearing, apparently, a nightshirt and a scarlet pixie cap.

The questions at the end of the first day ranged from the technical—about concrete fatigue in high towers—to the aesthetic—are we in danger of seeing in modern architecture the same chaos as in some of the other arts? And one's heart went out to the questioner who asked sadly whether, to be an architect, one had to be good at 'geometry and art and that sort of thing'; particularly when the lecturer replied firmly that an architect had to be good at *everything*. However, he sweetened the pill by saying that if you were keen enough about being an architect you were likely to find yourself good at quite surprising things.

The young people obviously enjoyed themselves; at least one not so young person did too.

In his second lecture, Mr. Baines showed how school subjects had a direct bearing later in life on an architect's practical work, taking as his illustrations pages from typical school exercise books intermixed with examples of office routine papers and sketches.

These included some amusing drawings by Mr. Felix Samuely explaining bending

moments. This was followed by a series of well-chosen slides in colour chiefly of modern schools and models, building up to a really memorable climax of views in colour of Ely Cathedral to the accompaniment of Debussy's 'Cathédral Engloutie'. The children asked some intelligent questions afterwards which elicited more facts about the profession of architecture. It is hard to imagine how the lecture could have been bettered either in content or manner of delivery.

Book Reviews

A General History of Architecture, by Bruce Allsopp. 10 in. xii + 233 pp. + 4 pls., text illus. Pitman. 1955. £2.

English art literature is surprisingly short of good single-volume histories of architecture, something suitable as an introduction for the general reader and student alike. Such books must be sound and scholarly, yet lucid and vivid in narrative. They must avoid being textbooks of styles and dates, yet they must present a coherent pattern. They must be well and aptly illustrated, for architecture can seldom rely solely on words. In several decades only Dr. Pevsner's *Outline of European Architecture* has met most of these needs, but it is only a survey starting at the romanesque. Into this barren field comes Mr. Allsopp's book, full of the most promising intentions backed for once by a publisher anxious to fulfil them. And how good this book is in its best parts, and how sad it is that these are not the whole!

Mr. Allsopp is rightly aware of the difficulties of his task, and of the failures and deficiencies of existing works, but he makes of this awareness a burden continuously tied to his conscious effort, a perpetual hindrance to freedom of thought and writing. It seems also that he has been given too much and too varied advice, all of which he has conscientiously striven to follow.

The history gets off to a slow and harassed start, being almost as much devoted to the problems of authorship, about which the reader is likely to care little, as to the subject itself. Fortunately, Mr. Allsopp ultimately tires of his nerve-racking tightrope journey; the later parts of the book are often excellent and never could it be called dull.

The reader may be roused by the many little intonances, and is also likely to be entertained by the dual picture of the author as a romanticist and a most socially conscious materialist. This dualism produces the strangest results; for example, the romanesque building achievement is largely dismissed as structural expediency, whilst close on the heels of this theory follows the quaint suggestion that we owe the gothic arch to the prattling of a crusade veteran in his cups. Mr. Allsopp has very harsh things to say about other romanticists and their theories.

Seldom can any author have been so ill-served by the reproduction of his photographic matter, but sympathies would be deeper were it not for the type of drawing which Mr. Allsopp has chosen for his own illustrations.

It is necessary to add that this is only the first of other projected companion volumes. It is a book to instruct, please or infuriate according to individual taste.

M. D. BEASLEY

L'Urbanisme dans la Grèce Antique, by Roland Martin. 11 in. 302 pp. incl. illus. + 32 pls. Paris: Picard. 1956. £4 4s.

In Professor Wycherley's preface to his well-known book *How the Greeks Built Cities*, he wrote: 'I shall concentrate on the Hellenic city of the sixth, fifth and fourth centuries, when politically and culturally it was at its highest level of development; it will not be necessary to become deeply involved in problems of origins and early history, or to cover systematically the succeeding "Hellenistic" period.'

Such an implied assumption that the classic period of Greek architecture was also the most significant period of Greek town planning has seldom been disputed, but it is an assumption derived more from sentiment or intuition than from any evidence of fact. It is of course an accommodating theory, since apart from corresponding with a human desire for tidy classification, it encourages those theorists who cite the Athenian Acropolis as a classic justification and prototype for modern informal design. Yet as Professor Martin shows, there is ample evidence to suggest that in Hellenic times the Greeks had almost no awareness of the aesthetic possibilities of town planning at all. The positioning of temples was still dictated by sacred associations of the site; houses were added haphazardly to existing towns in accordance with practical needs; and when new cities were laid out according to a deliberate plan (as in colonial settlements or after devastation by war) they were usually arranged chess-board fashion, with a monotony and regularity which most schools of thought nowadays would unhesitatingly condemn. Indeed one may suspect that it is the modern refusal to accept Hippodamian planning as the highest Periclean ideal that makes so many admirers of the period cling to the theory that the arrangement of the Acropolis at Athens expresses the true aesthetic principles of the 5th century B.C.

The answer to these apparent anomalies may well be that whilst the Hippodamian system fully represented the basic Greek ideal of planning, these did not develop aesthetically until the Hellenistic age. This at any rate is the view urged by Professor Martin. 'The orthogonal (i.e. Hippodamian) plans imposed themselves by their clarity, their logic, the remarkable ease with which they responded to the diverse functions of urban grouping, and the facilities they offered for future increases in size. They were perfectly adapted to the requirements of the city and to the formulae of its political, administrative and economic

life. But their excessive monotony, the insipidity or even the complete absence of any architectural framework, could not satisfy the luxurious tastes of princes and kings wishing to express their power, and Pergamum shows us the development of more original conceptions, where the functional principles were just as carefully respected but were treated with a sense of unified composition, a search for monumental effects and an adaptation of the architecture to the countryside which orientated city planning in a different direction.

For those modern theorists for whom any kind of formal monumentality is anathema, the suggestion that Hellenistic planning is the ultimate and most perfect expression of Greek civic design will be regarded with consternation. Nevertheless it must be conceded that the Hellenistic system, in which a strongly delineated pattern of focal points and connecting thoroughfares was incorporated within the basic grid, seems more in harmony with Greek philosophy than the picturesque approach which a deliberately composed Acropolis would imply. It was certainly more Greek than Oriental, as Professor

Martin, with a formidable wealth of argument, convincingly shows.

It would do less than justice to Professor Martin's erudition to deny that his text makes heavy reading at times, but then few books have ever been written about Greek architecture in that bright chatty style so appropriate for the baroque. It is usually the interminable arithmetic which weighs them down, and it is pleasant to find that *L'Urbanisme dans la Grèce Antique* is far less cluttered up with dimensions than most theoretical monographs dealing with the period. In this carefully documented and handsomely produced volume the student will find as readable an account of the history of Greek planning as he is likely to find anywhere, and certainly one which is more complete and authoritative than most.

PETER COLLINS [4]

The Architect in Practice, by *Arthur J. Willis and W. N. B. George*. 2nd ed. 8½ in. xiv + 272 pp. Crosby Lockwood. 1956. 20s.

The first edition of this book was published in 1952. Since then there have been changes in the building industry, and the second edition omits reference to statutory controls

which are no longer in force, such as building licences and control of the supply of materials. Amending Acts to the Town and Country Planning Act of 1947 are explained, but there is no reference to the General Development Order of 1950. This Order sets out certain operations for which planning approval is not necessary unless there is a Direction in a particular area that application must be made to the planning authority. No mention is made of the Town Planning Amendment Act of 1951, which enacted that the repair of war damage was development under the 1947 Act and required permission unless the repair could be brought within paragraph 1 of the Third Schedule to the Act. It is interesting to note that, by a recent decision of the Court, a Direction under the 1950 Order cannot be applied retrospectively to an operation which has already been carried out under the Order.

Students will find this book very helpful in enabling them to realise that an architect in practice is not concerned only with work on the drawing board. He must have a thorough knowledge of building law, contracts and the purpose of bills of quantities.

C. W.



A model of the A.B.S. Old People's Homes, Architects Clifford Culpin & Partner [F], is on view at the Building Centre

Notes and Notices

NOTICES

Special General Meeting, Tuesday 5 February 1957 at 6 p.m. A Special General Meeting will be held on Tuesday 5 February 1957 at 6 p.m. to confirm the resolutions passed at the Special General Meeting held on Tuesday 8 January 1957 concerning the leases of Nos. 66 and 68 Portland Place.

Fourth General Meeting, Tuesday 5 February 1957. The Fourth General Meeting of the Session 1956-57 will be held on Tuesday 5 February 1957 immediately following the Special General Meeting referred to above, for the following purposes:—

To read the Minutes of the Third General Meeting held on 8 January 1957.

The President, Mr. Kenneth M. B. Cross, M.A., to deliver an address to architectural students and present the Medals and Prizes 1957.

Sir Hugh Casson, M.A., R.D.I. [F], to read a criticism of the designs and drawings submitted for the Prizes and Studentships 1957.

(Light refreshments will be provided before the meeting.)

Drawing Office Technique. On Tuesday 12 February 1957 at 6 p.m. there will be a Symposium arranged by the Science Committee on 'The Relation and Form of Drawings, Specifications and Bills of Quantities.'

(Light refreshments will be provided before the meeting.)

Fifth General Meeting, Tuesday 19 February 1957 at 6 p.m. The Fifth General Meeting of the Session 1956-57 will be held on Tuesday 19 February 1957 at 6 p.m., for the following purposes:—

To read the minutes of the Fourth General Meeting held on 5 February 1957; formally to admit new members attending for the first time since their election.

Dr. Nikolaus Pevsner, C.B.E., F.S.A. [Hon. A], to read a paper on 'Architecture and William Morris'.

This meeting has been arranged in conjunction with the William Morris Society.

(Light refreshments will be provided before the meeting.)

Session 1956-1957. Minutes II. At the second Meeting of the Session 1956-1957 held on Tuesday 11 December 1956 at 6 p.m., Mr. Kenneth M. B. Cross, M.A., President, in the Chair.

The meeting was attended by about 240 members and guests.

The Minutes of the Inaugural General Meeting held on Tuesday 6 November 1956 having been published in the JOURNAL were taken as read, confirmed and signed as correct.

The following members attending for the first time since their election were formally admitted by the President: *As Fellows:* Alfred Ball, Frank Booth, E. J. Edwards, H. W. Fletcher, Sidney Kaye, J. S. Lacey, S. E. Malins, L. P. Murphy, P. H. F. Stiles, J. M. Wheeler, J. Lewis Womersley. *As Associates:* J. P. Barber, R. C. K. H. T. Bate, P. A. S. Benton, M. H. Billingham, R. I. Bryan, J. G. Burchill, G. T. Evans, R. G. S. Gill, J. G. H. Harrison, K. J. C. Meehan, G. F. Miles, R. G. A. Pilton, Michael Smith, Ivan Wilkes, Peter Winther. *As Licentiates:* C. E. T. Booth, Hugh Carmichael, P. C. Dyke, E. J. Haybittle, Alan

Painter, B. L. Phelps, W. H. Scanlan, John Soper.

Professor H. Myles Wright, M.A. (Cantab.) [F], having read a paper on 'The Motor Vehicle and Civic Design', a discussion ensued and on the motion of Mr. Colin D. Buchanan, B.Sc., A.M.I.C.E., A.M.T.P.I. [A], seconded by Mr. R. T. Kennedy, C.B.E., M.T.P.I. [A], a vote of thanks was passed to Professor Myles

Wright by acclamation and was briefly responded to.

The proceedings closed at 7.45 p.m.

British Architects' Conference, Oxford 10-11 July 1957. The Conference at Oxford this year has been arranged out of term in order that accommodation at some of the colleges might be available and supplement the hotel accommodation in the city.

Members are advised to make their reservations as early as possible and they must be made through the R.I.B.A.

BRITISH ARCHITECTS' CONFERENCE, OXFORD 1957

Hotels at which block reservations have been made

Hotel	Rooms Reserved		Charge Bed and Breakfast	Remarks
	Double	Single		
Cotswold Lodge Hotel, Banbury Road	2	2	25/-	Garage space available
*Derbyshire House, 18 Rawlinson Road	1	—	17/6	No garage space available but ample free parking
Eastgate Hotel, High Street	2	6	25/-	Garage available within few yards
Hotel Ehrsam, Botley Road	5	—	23/6	Garage available
*Elms Hotel, Church Way, Iffley	4	2	17/6	Garage space but extra charge is made
Fox Inn, Boars Hill	3	2	22/-	Garage for 3 cars available
Golden Cross Hotel, Cornmarket Street	6	4	26/-	Garage for 4 cars but only available during the day
*Holywell Hotel, 1 Holywell	4	—	21/-	No garage.
Isis Hotel, Iffley Road	3	—	21/-	Parking space available
King's Arms Hotel, Holywell Street	7	2	22/6	Garage near
Linton Lodge Hotel, Linton Road	3	—	25/-	Parking space available
Melville Hotel, Iffley Road	2	1	18/6	Parking space available
Mitre Hotel, High Street	10	8	30/-	Garages available very near
Original Swan Hotel, Cowley	2	—	20/-	Parking space available
Randolph Hotel, Beaumont Street	9	25	34/- (£3 3 0 double)	Garage available
Royal Oxford Hotel, Park End Street (near Railway Station)	6	6	31/- 35/- (with private bath-rooms)	No garage but ample car parking facilities near
*Thames Hotel, Iffley Road	3	—	21/-	Parking space available
The Tree Hotel, Iffley	2	—	21/-	Garage space available
*Wilberforce Hotel, Queen Street	3	2	21/-	No garage
<i>Outside Oxford</i>				
Brimpton Grange Hotel, Milton Common, Oxford	6	1	21/-	Garage for 5 cars. (Approximately 12 miles from Oxford)
Harcourt Arms, Nuneham Courtenay, Oxford	4	—	18/-	Garage space available. (Approximately 7 miles from Oxford)
Kings Arms Hotel, Woodstock	4	—	17/6	Parking facilities available (8 miles from Oxford)
Marlborough Arms Hotel, Woodstock	2	—	25/-	Garage space available. (8 miles from Oxford)

Accommodation in Colleges

	No. of Rooms	Charges†	Notes
Balliol College	200	£4 13 0	Men only except for about 8 married couples No car parking facilities.
St. John's College	100	£4 16 0	Men only No car parking facilities
Somerville College	120	£3 14 6	Women or married couples No car parking facilities No shoe cleaning service

Times of meals: Breakfast 8.30. Lunch 1.0. Dinner 7.0.

* Hotels marked with an asterisk are unlicensed. All the others are licensed.

† The charge quoted is an inclusive one and covers accommodation and meals from dinner on Wednesday, 10 July to breakfast on Saturday 13 July, and includes 10% for gratuities. (This refers to colleges only.)

Women members of the Conference and married couples can be accommodated at Somerville College. Balliol College can take men and a few women or married couples, while St. John's College can take men only.

Particulars are given opposite of the hotels and colleges at which rooms have been reserved by the R.I.B.A., together with the charges. Members wishing to reserve accommodation must write to the Secretary R.I.B.A. giving the following information: (1) Accommodation to be reserved; (2) For whom required; (3) Period for which required; (4) Any preference as to hotel or college.

R.I.B.A. Dinner. Members are reminded that the R.I.B.A. Dinner will be held at the Dorchester Hotel on Wednesday 27 February. The price of tickets is 35s. each and applications should reach the Secretary R.I.B.A. by 8 February.

Hungarian Architectural Students. An appeal has been made in these pages for offers of employment for Hungarian refugee architects. The question of resettling refugees already qualified in their profession is only one aspect of the many-sided problem facing the organisations which are dealing with the incoming refugees. Many of these refugees are students, whose studies have been suddenly interrupted by the disturbances in Hungary and who have sought refuge outside their country. Among these are a number of architectural students and it is hoped that as soon as possible they may be settled in a school of architecture where they may continue their studies and at the same time learn English.

If a certain number of these students, say 12 to 20, were got together they would be accepted by the Department of Architecture of the Northern Polytechnic. They could as a temporary measure be instructed by an English-speaking Hungarian architect, who would be able to maintain liaison with the existing staff of the school and carry out all day-to-day matters on behalf of the Hungarian students until they had acquired sufficient fluency in English. At that stage each individual student could join the year of the normal architectural course appropriate to his standard and subsequently qualify for registration in the usual way.

The possibility of such a course depends entirely upon finding an instructor suitably qualified and willing to undertake the amount of tuition considered necessary.

The Council would be grateful if anyone who is acquainted with a suitably qualified instructor or with any Hungarian architectural students anxious to continue studies in this country would contact the Secretary.

Kalendar 1956-1957. Owing to a printer's error the name of Mr. John Albert Rawlinson [A] was omitted from the Kalendar. The following entry should appear on p. 437 after Rawlinson: James.

A. Rawlinson: John Albert, DIPL. ARCH. (Northern Polytechnic); 98 South Lodge Drive, Oakwood, Southgate, N.14.

[11096] [1949] P. 790. The name Morgan: W. V. (Tenby) should appear under Associates, not Licentiates.

Cessation of Membership. Under the provisions of Bye-law 21 the following have ceased to be members of the Royal Institute: as Associates—Robert Jestyn Gwent Forester-Walker, Stephen Paul Jewitt, Mohamad Ghousullah Khan, Mono Mohan Maitra, Terence Edward Saffer, Tun Sein, Keith Hopewell Bowman Tandy; as Licentiate—Raymond Frank Aspinall Judge.

Disciplinary Action. Mr. William Vernon Coupland of 6 The Quadrant, Richmond, Surrey, an Associate, was suspended from membership of the Royal Institute for a period of nine months terminating on 4 October 1957 by a decree of the Council dated 8 January 1957 made pursuant to the Bye-laws.

Publicity. The Practice Committee recommend members to see that, when writing or approving an article or descriptive note for the Press, technical or otherwise, relating to a completed building, the names of the quantity surveyor and contractor are always mentioned.

Annual Subscriptions and Contributions. Members' subscriptions and Students' contributions for 1957 became due on 1 January.

	£	s.	d.
Fellows	10	10	0
Associates	6	6	0
Licentiates	6	6	0
Students	2	2	0

For members resident in the trans-oceanic Dominions who are members of Allied Societies in those Dominions, and for members resident overseas in areas where no Allied Society is available, the amounts are as follows:

	£	s.	d.
Fellows	6	6	0
Associates	4	14	6
Licentiates	4	14	6

CURRENT R.I.B.A. PUBLICATIONS

The following is a list of the main R.I.B.A. publications with their prices.

Agreement, Forms of

Form of Agreement for General Use between a Private Building Owner and an Architect or a Firm of Architects.

Form of Agreement for General Use between a Building Owner (being a Statutory Authority) and an Architect or a Firm of Architects.

Form of Agreement between a Local Authority and a Firm of Architects for Housing Work.

Form of Agreement between a Local Authority and a Firm of Architects for Multi-Storey Flats.

Form of Agreement between the Promoters and a Firm of Architects appointed as the Result of a Competition.

Price 6d. per form (inclusive of purchase tax). Postage 3d.

Architect and His Work, The

Price 6d. Postage 3d.

Before You Build. Free

Certificates, Architects', Form Prepared by the Practice Committee

Copyright Book of 100 Certificates. Price 17s. (inclusive of purchase tax). Postage 1s. 4d.

Conditions of Engagement and Scale of Professional Charges

Price 6d. Postage 3d.

Contract, Form of Agreement and Schedule of Conditions

For use with quantities: 1939 revised 1956. Copyright.

For use without quantities: 1939 revised 1956. Copyright.

Price 2s. 2d. per form (inclusive of purchase tax). Postage 4d.

Adapted for the use of Local Authorities, for use with quantities: 1939 revised 1956. Copyright.

Adapted for the use of Local Authorities, for use without quantities: 1939 revised 1956. Copyright.

Price 2s. 5½d. per form (inclusive of purchase tax). Postage 4d.

Fixed Fee Form of Prime Cost contract for use in the repair of war-damaged property, 1946 revised 1956. Copyright.

Price 2s. 2d. (inclusive of purchase tax). Postage 4d.

Cost Plus Percentage Form of Prime Cost Contract for use in the repair of war-damaged property: 1946 revised 1956. Copyright.

Price 2s. 2d. (inclusive of purchase tax). Postage 4d.

Examination, Intermediate, Questions Set At

Price 1s. per examination. Postage 3d.

Examination, Professional Practice, Questions Set At

Price 6d. Postage 3d.

Examinations, Final and Special Final, Questions Set At

Price 1s. per examination. Postage 3d.

Forms of Articles of Pupilage

Copyright. Price 1s. 8d. (inclusive of purchase tax.) Postage 3d.

Membership of the R.I.B.A.

Particulars of the Qualifications for Associate-ship.

Price 2s. 6d. Postage 4d.

Party Wall Notice Forms, for Use Under the London Building Act

Form A—Party Structures.

Form B—Party Fence Walls.

Form C—Intention to Build within Ten Feet and at a lower level than the bottom of the foundations of adjoining Owner's Building.

Form D—Intention to build within Twenty Feet of the adjoining Owner's Independent Building and to a depth as defined in Section 50(1)(b).

Form E—Party Walls and Party Fence Walls on line of Junction of adjoining lands.

Form F—Walls or Fence Walls on Building Owner's land with footings and foundations projecting into adjoining Owner's land.

Form G—Selection of Third Surveyor.

Price 7d. per form (inclusive of purchase tax). Postage 3d.

Tender, Form of, for use by Nominated Suppliers Price 2d. per form. Postage 3d. 2s. per dozen (post free).

COMPETITIONS

Proposed Municipal Offices and Civic Hall, Carlisle. Members are reminded that the last day for submitting designs in the Preliminary Stage is 31 January 1957. The last day for submitting designs in the Final Stage is 1 July 1957. Full particulars were last published in the JOURNAL for December, p. 79.

Northern Ireland War Memorial Building. The Governors of the Council of the Northern Ireland War Memorial invite architects resident in Great Britain and Northern Ireland to

submit designs for a Memorial Hall and offices, to be erected in Belfast, Northern Ireland.

Assessors: Mr. Harold A. Dod, M.A. [F], Mr. R. S. Wilshire, M.C., F.R.I.C.S. [F].
Premiums: £750, £500, £300.

Last day for submitting designs: 30 March 1957.

Conditions may be obtained from Captain W. H. Wilson, Hon. Secretary, The Council of the Northern Ireland War Memorial, 73 King Street, Belfast.

Deposit: £2 2s. 0d.

An applicant for the conditions must state his registration number or the number of the receipt issued to him by the Architects' Registration Council in respect of the admission fee.

New Technical College Buildings, Paisley, Scotland. The Governors of the above College invite architects registered under the Architects (Registration) Acts and resident in Great Britain, Northern Ireland or the Republic of Ireland to submit in competition designs for new Technical College buildings in Paisley, Scotland.

Assessor: Professor R. Gardner-Medwin, M.T.P.I. [F].

Premiums: £1,500, £1,000, £500.

Last day for submitting designs: Noon on 27 March 1957.

Conditions may be obtained from Messrs. J. and A. Gardner, Clerks to the Governors, 3 County Place, Paisley, Renfrewshire.

Deposit: £2.

An applicant for the conditions must state his registration number or the number of the receipt issued to him by the Architects' Registration Council in respect of the admission fee.

International Competition, Geneva. The Department of Public Works for the Republic and Canton of Geneva are promoting an International Contest of Ideas for the layout of the Place des Nations and the Approach to the Secretariat of the Palais des Nations in Geneva. Assessors: M. Jean Dutoit, Prof. Sir Patrick Abercrombie [F], M. Eugène Beaudouin, M. Jacques Carlu, M. Arnold Hoechel, M. Giulio Minoletti, M. Werner Moser. The Assessors will work in consultation with representatives of the European Office of the United Nations, the City of Geneva, the Chief of Police of Geneva, the Secretary General of the Department of Public Works.

Premiums: 40,000 Swiss francs to be awarded to a maximum of 5 entries; 10,000 Swiss francs for the purchase of the premiated entry.

Last day for the despatch of entries: 6 p.m., 15 April 1957.

Conditions may be obtained on application to the Department of Public Works, 6 rue de l'Hôtel de Ville, Geneva.

Deposit: 50 Swiss francs, returnable if an entry is submitted.

The conditions of this competition have been approved by the I.U.A.

International Competition, Memorial to Enrico Fermi, Chicago, U.S.A. The Chicago Joint Civic Committee of Italian Americans and the Chicago Junior Association of Commerce invite architects, engineers, draughtsmen and students of all countries to submit designs in competition for a memorial pavilion. Professional Adviser: Mr. John O. Merrill, F.A.I.A., Chicago.

Jury: Mr. Ludwig Mies van der Rohe, Chicago (Architect), Mr. Gordon Bunshaft, New York (Architect), Mr. Jose Luis Sert, Cambridge, Mass. (Architect), Mr. Pier Luigi Nervi, Rome (Structural Engineer), Dr. Lancelot Law Whyte, London (Physicist).

Non-Voting Honorary Members: Mr. Joseph Barbera, Chicago; Mr. Nicholas Dispenza, Chicago; Dr. Samuel Allison, Chicago.

Premiums: \$5,000, \$3,000, \$1,000 and five other awards of \$200.

Conditions may be obtained on application to: Fermi Memorial Competition—Mr. John O. Merrill, 100 West Monroe Street, Chicago 3, Illinois, U.S.A. No deposit will be required from competitors outside the United States. The International Union of Architects have announced that participation in this competition may now be allowed in view of certain modifications in the conditions made by the promoters and the clarification of some points. The closing date for submitting designs for persons living outside the United States has been extended to 10 March 1957.

ALLIED SOCIETIES

Changes of Officers and Addresses

Nottingham, Derby and Lincoln Society of Architects, Lincoln Branch. Chairman, A. Ronald Clark [A].

Berks, Bucks and Oxon Architectural Association. R.I.B.A. Architecture Bronze Medal. The R.I.B.A. will award a Bronze Medal for a building of outstanding merit completed in the province of the Berkshire, Buckinghamshire and Oxfordshire Architectural Association during the four-year period ended 31 December 1956.

Members other than members of the Association who have done work in the area during the four-year period who may wish to put their buildings forward for consideration should write for conditions to the Hon. Secretary, Arthur J. Miller, M.C.D. [A], 21A King's Road, Reading.

Bristol and Somerset Society of Architects. On Thursday 6 December Mr. Eric L. Bird [A], Technical Education Officer of the Building Centre, gave a lecture before the Bristol and Somerset Society of Architects on 'New Developments in Walling Materials'. Mr. Bird's illustrations included examples from all over the world, thus giving an opportunity to compare British with overseas practice.

Members of the Gloucestershire, Somerset and North Wilts branch of the R.I.C.S. and of the South-West Federation of Building Trades Employers were also present, and after the lecture a vote of thanks was proposed by Mr. Evelyn Freeth [A], Principal of the Royal West of England Academy School of Architecture, and seconded by Mr. Adlam, Chairman of the Gloucestershire, Somerset and North Wilts Branch of the R.I.C.S.

Liverpool Architectural Society. Annual Dinner. The annual dinner of the Liverpool Architectural Society was held at the Adelphi Hotel, Liverpool, on Wednesday 28 November. The President of the Society, Mr. Leslie Alexander [A], was in the chair and the guests included Mr. Leonard C. Howitt, Vice-President R.I.B.A., the Lord Mayor and Lady Mayoress of Liverpool, Mr. Neville Laski, Q.C., Recorder of Liverpool, Miss Rose Heilbron, Q.C., Recorder of Burnley, the Presidents of the West Yorkshire Society of Architects and the Birmingham and Five Counties Architectural Association and representatives of kindred societies and associations in the region.

Mr. Neville Laski proposed the toast of the R.I.B.A. and the Allied Societies and Mr. Howitt replied. Mr. Alexander proposed the

toast of the guests and said the citizens of Liverpool were particularly proud of the long established and continued interest in architecture shown by the Liverpool Corporation and the city's leadership in the field of housing. The old days of private patrons of architecture were past but as long as there were far-seeing and capable local authorities, proud of their architectural heritage and jealous of their architectural future, we need have no fear. The toast was replied to by the Lord Mayor of Liverpool.

West Yorkshire Society of Architects. Annual Dinner. The annual dinner of the West Yorkshire Society of Architects was held on Friday 7 December at the Queen's Hotel, Leeds. The President of the Society, Mr. Norman H. Fowler [F], was in the chair and among the guests were Mr. K. M. B. Cross, President R.I.B.A., Sir Linton Andrews and Lady Andrews, Mr. Desmond Heap, LL.M., P.P.T.P.I., Comptroller and City Solicitor to the Corporation of London, the Lord Mayor of Leeds, the President of the Incorporated Leeds Law Society, representatives of the Yorkshire chartered surveyors, engineers, accountants and builders, the Presidents of the Manchester Society of Architects, the Northern Architectural Association, the Sheffield and South Yorkshire District Society of Architects and Surveyors and the York and East Yorkshire Architectural Society, and Mr. C. D. Spragg, C.B.E., Secretary R.I.B.A.

Mr. Heap proposed the toast of the R.I.B.A. and the West Yorkshire Society of Architects and said he hoped the R.I.B.A. would continue to encourage a general high standard of building by stimulating the growth of aesthetic taste and architectural appreciation. He did not subscribe to the view that functionalism in architecture was enough. New and exciting buildings should be built, but they should profit from what was best in the past instead of growing in the air without roots or ancestry. Mr. Cross, replying, said he thought architects might work in conjunction with local newspapers to help the public appreciate what architects were trying to do. He added that a tour of Australia, New Zealand and Canada was shortly to be undertaken by members of the R.I.B.A. to tighten the links between architects. It was important that some marriage of English and overseas qualifications should be established.

Mr. Fowler proposed the toast of the guests and the Lord Mayor of Leeds replied.

GENERAL NOTES

A.R.C.U.K. Maintenance Scholarships in Architecture. The Architects' Registration Council of the United Kingdom offer for award in June 1957 certain maintenance scholarships in architecture. The scholarships will be renewable from year to year until the student has finished his or her school training. They will be available for students of British nationality who could not otherwise afford such training to enable them to attend architectural schools approved by the Council. Students must, before submitting applications for A.R.C.U.K. maintenance scholarships, ascertain from the local education authority for the district in which they reside whether that authority has any form of financial assistance available in cases such as theirs. Applications will not be considered if no steps have been taken by students to secure such other assistance as may be available. The scholarships will be available both for students who have already begun their training and for students wishing to begin their training.

Scholars who will October is taken. Particular obtained Architecture Col Wimpole. Copies may be o The clo dily com
R.I.C.S. Institution the inaug and prize to be read Conferen members submitted within a or in the hope that The A at the Un winning P. The then changing land own invited or and Land Ownershi Tenure ar and Socia and Natu tations o should ha entry for the Secre not later
Robert B ology. Th application Blair Fel year of a in applic of the aw chosen by made an country : States. A should b Particular obtained at the Co Candid subjects ships are women, science a given to c have com institution the Lond The Rc lished by of the out and the Blair, LL Officer fr which the from a st L.C.C. as taken in First Wor
Arthur L the Arthu founded t

Scholarships will not be granted to students who will be less than 17 years of age on 1 October of the year in which the examination is taken.

Particulars and forms of application may be obtained from: The Secretary to the Board of Architectural Education, Architects' Registration Council of the United Kingdom, 78 Wimpole Street, London, W.1.

Copies of previous years' examination papers may be obtained on payment of 6d.

The closing date for the receipt of applications, duly completed, is 31 January 1957.

R.I.C.S. Gold Medal and Prize. The Royal Institution of Chartered Surveyors announce the inauguration of an annual gold medal and prize of 100 guineas for a paper chosen to be read at the Chartered Surveyors' Annual Conference. The competition is not limited to members of the Institution; entries may be submitted by any person ordinarily resident within a country of the British Commonwealth or in the Republic of Ireland, and the Institution hope that members of the R.I.B.A. will enter.

The Annual Conference 1957 is to be held at the University of Nottingham and the prize-winning paper will be read on Friday 19 July. The theme of the Conference is to be the changing British economy and its effect on land ownership and development. Papers are invited on four subjects: (1) Capital Formation and Land Value, (2) Political Theory and Land Ownership, (3) Technical Progress and Land Tenure and (4) The Contribution to Economic and Social Development of Surveys of Land and Natural Resources. There are certain limitations on the scope it is intended the subjects should have and further inquiries, requests for entry forms and rules should be addressed to the Secretary R.I.C.S. Papers must be sent in not later than 7 May 1957.

Robert Blair Fellowships in Science and Technology. The London County Council is inviting applications for the award of the 1957 Robert Blair Fellowship, which is tenable for one year of advanced study or research overseas in applied science and technology. The value of the award varies according to the country chosen by the person to whom the award is made and may be as much as £2,000 if the country selected is Canada or the United States. Applications for the 1957 Fellowship should be made before 28 February 1957. Particulars and application forms can be obtained from the Education Officer (WA. 14) at the County Hall, S.E.1.

Candidates must be natural born British subjects and at least 21 years of age. Fellowships are open to suitable candidates, men or women, who have been trained in applied science and technology, but preference is given to engineering science and to those who have completed a course of study in London institutions or who have been identified with the London teaching service.

The Robert Blair Fellowships were established by the L.C.C. in 1925, in appreciation of the outstanding services given to the Council and the London teaching service by Sir Robert Blair, LL.D., who was the L.C.C.'s Education Officer from 1904 to 1924. The fund from which the Fellowships are provided originated from a sum of money which accrued to the L.C.C. as a result of munitions work undertaken in London technical colleges during the First World War.

Arthur Louis Aaron V.C. Scholarship. In 1944 the Arthur Louis Aaron V.C. Scholarship was founded by public subscription as a memorial

to Flight Sergeant A. L. Aaron, V.C., D.F.M., a former pupil of Roundhay School, Leeds, and student of the Leeds School of Architecture, who was posthumously awarded the Victoria Cross. The scholarship is tenable for the diploma course in architecture at the School but, owing to the increased number and value of awards made by local education authorities, there have been no applications for it for several years. The last holder of the scholarship completed his course this year.

The Management Committee of the scholarship therefore propose in future to award it for post-diploma travel and study in architecture. No limit will be placed on the length of travel and the scholarship will be open to present or past students of both sexes who, at the time of taking up the award, hold the diploma in architecture of the School. Preference between candidates of equal merit will be given to a former pupil of Roundhay School. The value of the scholarship for 1957 will be £250. It is expected that the opportunities the scholarship offers will appeal to many past and present students of the School.

Applications should reach the Clerk to the Leeds School of Architecture and Town Planning, 43A Woodhouse Lane, Leeds 2, from whom further details may be obtained, by 18 February.

Aluminium. The R. S. Reynolds Memorial Award. The Directors of the Reynolds Metals Company, of Richmond, Virginia, U.S.A., are establishing the R. S. Reynolds Memorial Award, to be made annually to an architect who has made an outstanding contribution to the use of aluminium, aesthetically or structurally, in the building field. The award will carry an honorarium of \$25,000 and an appropriate emblem. It will be made only for structures which have been built and preference will be given to work completed during the preceding twelve months. The award is to be administered by the American Institute of Architects.

Full details are not yet available, but meanwhile enquiries should be addressed to: The R. S. Reynolds Memorial Award Committee, Third and Grace Streets, Richmond, Virginia, U.S.A.

Leverhulme Research Awards 1956. The Trustees have approved a research grant for two years to Mr. H. Thomas [L], Assistant Buildings Officer, University of Manchester, to study the application of architectural acoustics to the design and construction of schools for the deaf.

Bartlett School of Architecture. An exhibition of drawings from some schools of architecture in the British Commonwealth and from the Bartlett School of Architecture is being held in the North Cloisters at University College London, Gower Street, W.C.1. The Exhibition will be open to the public on 31 January and 1 February from 10 a.m. to 7 p.m. each day. Admission is free and without ticket.



Membership List

ELECTION: 8 JANUARY 1957

The following candidates for membership were elected on 8 January 1957.

AS HON. FELLOWS (6)

Clark: Sir Kenneth, K.C.B., Hythe.
Mountbatten of Burma: The Earl, Admiral of the Fleet, K.G., P.C., G.C.B., G.C.S.I., G.C.I.E., G.C.V.O., D.S.O., LL.D., D.C.L., D.Sc., Romsey.
Sitwell: Sir Osbert, Bt., C.B.E., LL.D., D.Litt., F.R.S.L., Renishaw, near Sheffield.
Tedder: Lord, Marshal of the Royal Air Force, G.C.B., Banstead.
Warr: The Very Rev. Charles Laing, K.C.V.O., D.D., LL.D., Hon. R.S.A., Dean of the Thistle and of the Chapel Royal in Scotland, Minister of St. Giles Cathedral, Edinburgh, Chaplain to the Queen, Edinburgh.
York: The Lord Archbishop of, The Most Rev. Arthur Michael Ramsey, D.D., York.

AS HON. ASSOCIATES (6)

Anderson: Sir Colin (Skelton).
Betjeman: John, Wantage.
Logan: Douglas William, M.A., D.Phil., LL.D., D.C.L., Principal of the University of London.
Piper: John Egerton Christmas, Henley-on-Thames.
Willink: The Right Hon. Henry Urmston, M.C., Q.C., M.A.(Cantab.), D.C.L.(Lambeth), Cambridge.
Worboys: Walter John.

AS FELLOWS (6)

Astbury: Frank Nicholas, M.Sc.(Columbia), B.Arch.(L'pool) [4 1925], Birmingham.
Bartlam: Walter Ashley, Dip.Arch.(Birm.) [4 1949], Elgin.
Bennett: Arthur Cyril, Dipl.Arch., Dip.C.D.(L'pool), A.M.T.P.I. [4 1934], Chester.
Brashier: Michael Hugh, Dip.Arch.(The Polytechnic) [4 1948].
Harrison: (Miss) Mary Reed, B.A.(Lond.) [4 1948], Cambridge.
 and the following Licentiate who is qualified under Section IV, Clause 4 (c) (ii) of the Supplemental Charter of 1925:—
Moir: Neil Burke, Paisley.

AS ASSOCIATES (38)

Ager-Harris: James William, Dipl.Arch.(Oxford), Reading.
Appleyard: Donald, A.A.Dipl., A.R.I.C.S.
Bennett: Denis Leonard, Farnham.
Bishop: Brian John, Dipl.Arch.(Oxford), Southampton.
Bonham: Paul, Dip.Arch.(Birm.), Birmingham.
Brown: Andrew Bolwell, Dipl.Arch.(U.C.L.), Burnham-on-Sea.
Button: Clive Derek, Dip.Arch.(The Polytechnic), Chislehurst.
Cuthbertson: John, Dip.Arch.(The Polytechnic).
Darke: Geoffrey James, Dip.Arch.(Birm.), Evesham.
Dent: John Wilfrid, Dip.Arch.(Dunelm), Sunderland.
Dixon: Anthony Clive Spenlove, Dip.Arch.(Dunelm), Newcastle upon Tyne.
Freeman: Geoffrey Paul, B.Arch.(L'pool), Liverpool.
Holt: John Brian, Dip.Arch.(Birm.), Southampton.
Luker: Raymond, Dipl.Arch.(U.C.L.), Southampton.
McGregor: Thomas Aloysius, D.A.(Dundee), Arbroath.
Marsh: Arthur Leslie, Dip.Arch.(Birm.), Birmingham.

Miller: (Mrs.) Janet Josephine, B.A.(Arch. (Lond.) Shenfield.
Milne: (Miss) Sheila Mary, Dip.Arch.(Abdn.), Aberdeen.
Milton: Kenneth Hugh, Dip.Arch. (The Polytechnic), Chalfont St. Peter.
Morgan: Llewellyn.
Morris: Elwyn Sims, Dip.Arch.(The Polytechnic), Woodford Green.
Pavey: Neville John, Dipl.Arch.(Northern Polytechnic).
Phillips: Peter Paul.
Potter: Derek Gordon, Dip.Arch.(The Polytechnic).
Pugh: Edward Brian, Dip.Arch.(Birm.), Shrewsbury.
Ramage: Thomas Muir Livingstone, D.A. (Edin.), Cowdenbeath.
Roberts: David Leslie, Dip.Arch.(The Polytechnic).
Roberts: Dennis Spencer, A.A.Dipl.
Szarowicz: Marian Jan Kordian.
Talbot: Ian Howard, Dip.Arch.(The Polytechnic).
Thomson: Duncan Barrie, D.A.(Glas.), Newport on Tay.
Toner: William McKnight, D.A.(Glas.), Glasgow.
Watson: Andrew Houston, D.A.(Glas.), West Kilbride.
Watts: Alan Peter, Dipl.Arch.(U.C.L.), Barnet-hurst.
Webster: John Michael, Dip.Arch.(Birm.), Birmingham.
Wesolowski: Michael Josef, Dip.C.D.(L'pool), Richmond, Surrey.
Whitbourn: Philip Robin, Dipl.Arch.(U.C.L.), Sevenoaks.
Wood: Harold Richardson, B.Arch.(Dunelm), Crook.

ELECTION: 5 FEBRUARY 1957

An election of candidates for membership will take place on 5 February 1957. The names and addresses of the candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Saturday 2 February 1957.

The names following the applicant's address are those of his proposers.

AS HON. ASSOCIATE (1)

Newsom: John Hubert, C.B.E., The Bear House, Ashwell, Herts. Proposed by the Council.

AS ASSOCIATES (128)

The name of a school, or schools, after a candidate's name indicates the passing of a recognised course.

Aldridge: George, (Special Final) 95, Highfield Road, Farnworth, Lancs. G. A. Crockett, L. S. Stanley, Cecil Stewart.

Anstis: John Emile, (Special Final) 84, Crofton Avenue, Bexley, Kent. E. L. Gale, R. G. Cox, E. A. Day.

Arch: Dennis Alexander, (Special Final) 7, Huntercrombe Gardens, South Oxhey, near Watford, Herts. E. L. Gale, R. G. Cox, E. A. Day.

Armistead: Brian Trastour, (Final) 15, Portland Square, Carlisle, Cumberland. J. H. Haughan, A. G. Jury, J. P. Rudd.

Askew: Harold, (Special Final) 'Ochreley', Andrew Lane, High Lane, Nr. Stockport. Applying for nomination by the Council under Bye-law 3(d).

Austin: John Gordon Martin, Dipl. Arch.

(Northern Polytechnic) (Northern Poly. (London): Dept. of Arch.) 8, Newton Grove, Bedford Park, W.4. T. E. Scott, C. B. Bath, G. W. Jackson.

Barnett-Bialoskorski: Stanley, (Special Final) 85, Radcliffe Road, Harrow Weald, Middlesex. L. G. Pargiter, George Ford, Z. Sirotkin.

Bell: Edward, (Final) 50, Dunbeg Park, Hillsborough, Co. Down, Northern Ireland. R. H. Gibson, E. D. Taylor, A. F. Lucy.

Bennett: Denis Ronald, (Special Final) 80, Elgin Avenue, Ashford, Middlesex. Paul Nightingale, Dr. R. Herz, Arthur Korn.

Blake: Hugh Worsley, (Final) 2, Wellington Terrace, Bristol, 8. E. H. Button, G. D. G. Hake, T. H. B. Burrough.

Bonner: Gordon William Victor, (Special Final) 'Dinant', 67, Buckland Road, Maidstone, Kent. Sidney Loweth, Sir Alfred Bossom, R. T. Green.

Boyes: Peter Elliott, (Final) 4, Tasmania Square, Marton, Middlesbrough, Yorks. Prof. W. B. Edwards, J. H. Napper, Bruce Allsopp.

Broughton: Keith Jeffrey, (Final) 10, Lindley Road, Little Horton, Bradford 5, Yorks. W. C. Brown, L. T. Appleyard, N. H. Fowler.

Brown: Gordon Douglas, (Final) 'Brambles', 92, West End, Kemsing, Nr. Sevenoaks, Kent. H. Colbeck, A. H. Ley, A. L. Luke.

Budd: Sidney Grahame, (Special Final) 22A, Gabriel's Hill, Maidstone, Kent. J. E. Jackson, F. W. B. Yorke, A. W. Swaine.

Burns: Cecil William, (Special Final) 29, Newfield Crescent, Dore, Sheffield. J. W. Davidson, Robert Cawkwell, Prof. Stephen Welsh.

Cairns: James George Hamilton Dickson, (Special Final) Robinwood, Birds Hill Drive, Oxshott, Surrey. A. E. Miller, J. Holman, Edwin Williams.

Carroll: Gerald Francis, (Special Final) 2, Pearce Road, Corstorphine, Edinburgh, 12. J. R. McKee, Frank Wood, Sir Charles Mole.

Carter: Bruce Bonham, (Special Final) 24, Thurbern Road, Portsmouth, Hants. A. C. Townsend, J. V. Nisbet, R. L. Reynish.

Carter: Charles Henry, (Special Final) 156, Sherwood Avenue, S.W.16. W. Beswick, D. F. Martin-Smith, Z. Sirotkin.

Catt: Dennis Charles, (Final) 17a, Holly Street, Smethwick, Staffs. J. B. Surman, G. S. Kelly, A. Douglas Jones.

Chapman: (Miss) Anita Monica Gwendoline, (Final) 116, Redland Road, Bristol 6. T. H. B. Burrough, Brian Westwood, N. C. Westwood.

Clark: Robert Francis, (Special Final) 6, Vicarage Farm Road, Hounslow, Middlesex. Paul Nightingale, Edwin Rice, Arthur Korn.

Clifford: John Ulph, (Special Final) 116, Gertrude Road, West Bridgford, Nottingham. Applying for nomination by the Council under Bye-law 3(d).

Colwill: (Miss) June Selby, (Final) 49, Park Avenue, Porthcawl, Glam. C. G. Stillman, R. T. Grumman, Ernest Seel.

Comber: Philip George, (Special Final) 11, Downland Close, Southwick, Sussex. H. H. Ford, K. E. Black, C. W. Box.

Connolly: Edward, (Special Final) 3, Stukeley Hill, Great Stukeley, Huntingdon. C. G. Stillman, Ernest Seel, T. H. Longstaff.

Cooper: John Crandon Slade, (Final) 23, Portway, Wells, Somerset. W. H. Watkins, E. H. Button, Kenneth Nealon.

Craft: Richard Walter, D.F.C., (Special Final)

3A, Royston Road, Richmond, Surrey. T. E. Scott, C. G. White, E. A. W. Iker.

Cutler: Bryan John, (Final) Grove Farm, Cookham, Berks. T. E. Scott, C. G. Bath, S. F. Burley.

Dando: Leslie Cooper, (Special Final) 10, Clockhouse Lane, Collier Row, Romford, Essex. L. R. Guthrie, J. J. Crowe, William Evans.

Davey: John Roland, (Final) 205, Kentwood Hill, Tilehurst, Reading, Berks. R. W. Cawley, R. J. Sneller, E. S. Smith.

Davies: Cecil Frederick, (Special Final) 4, London Road, Dorchester, Dorset. E. Ricketts, C. Fifield, G. A. Crockett.

Davis: Owen Oldfield, (Special Final) 'Home lands', Littleton, Nr. Winchester, Hants. Applying for nomination by the Council under Bye-law 3(d).

Dawson: Robert, D.A.(Edin.) (Edinburgh Coll. of Art: Sch. of Arch.) 46, Craigleith Hill, Gardens, Edinburgh, 4. Esme Gordon, W. C. Dey, David Carr.

Dixon: Peter Guy, (Final) Witham-on-the-Hill, Near Bourne, Lincs. C. J. Tomkins, L. G. Hannaford, Noel Pymman.

Eade: Keith Richard James, (Special Final) 2, Christine Avenue, Rushwick, Worcester. L. Lomas, L. C. Howitt and applying for nomination by the Council under Bye-law 3(d).

Easton: (Miss) Mary Ruth, (Final) 27, Belmont Road, Hastings, Sussex. T. E. Scott, S. F. Burley, C. G. Bath.

Espie: Thomas Ainslie, (Special Final) 10, Woodside Way, Glenrothes, Fife. Walter Underwood, F. R. Wylie, G. F. Shanks.

Favell: Geoffrey, (Final) c/o Messrs, Cubitt Nichols, 37, Norfolk Street, Strand, W.C.2. D. C. Nichols, S. Clough, J. S. Walkden.

Fisher: Eric Gordon, (Final) 29, Thurlow Road, N.W.3. T. H. B. Burrough, S. Clough, D. C. Nichols.

Flood: Stanley Arthur, (Special Final) 4, Ashley Avenue, Ilford, Essex. T. E. Scott, C. G. Bath, A. V. Banks.

Ford: Jack, (Final) 25, Herbert Road, York Road, Doncaster. H. A. Johnson, Frank Booth, H. A. Hickson.

Fordy: Basil, Dipl.Arch.(Leeds) (Leeds Sch. of Arch.) 37, The Meads, Eastfield, Scarborough. F. Chippindale, R. S. Shapley, D. A. Fowler.

Forman: Robert, (Special Final) 122, Hampton Road, Redland, Bristol 6. F. L. Hannan, T. H. B. Burrough, Kenneth Nealon.

Fowler: Ronald Arthur, (Special Final) 10, Stanmer Villas, Brighton, 6, Sussex. J. L. Deaman, K. E. Black, W. J. Thrasher.

Franclow: Eric Godfrey, F.R.I.C.S., (Special Final) 338, Long Lane, Bexleyheath, Kent. C. W. McIntosh, A. G. Chant, Douglas Hall.

Garnham: Derek, Dipl.Arch.(Leeds) (Leeds Sch. of Arch.) 5, Rose Villas, Friarwood, Pontefract, Yorks. F. Chippindale, D. A. Fowler, Frank Booth.

Garston: John William, (Final) The Flat, 315, Moston Lane, Moston, Manchester, 10. Cecil Stewart, F. M. Reynolds, F. L. Halliday.

Gelsthorpe: John Charles, (Final) 36, Main Road, Wilford, Nottingham. A. E. Eberlin, L. Darbyshire, Cecil Howitt.

Gough: William, (Final) 27, Sandford Green, Banbury, Oxon. Reginald Cave, F. T. Pritchard, O. H. Nuttall.

Greer-Perry: John Reginald, (Final) 24, Oak

ford Avenue, Weston-super-Mare, Somerset.
 Harold Jones, T. H. B. Burrough, E. H. Button.
Grey: Peter Alexander Harvey, Dipl.Arch.
 (Cardiff) (Welsh Sch. of Arch. The Tech.
 Coll., Cardiff) 32, St. Alban Avenue, Heath,
 Cardiff. Sir Percy Thomas, Dr. T. A. Lloyd,
 Lewis John.
Hammond: Colin Edward, (Final) 59, Redhill
 Road, West Heath, Birmingham, 31. J. B.
 Surman, G. S. Kelly, Edwin Watson.
Hansford: Brian Harry, (Final) 27, London
 Avenue, North End, Portsmouth, Hants.
 A. C. Townsend, Ronald Ward, Victor
 Wilkins.
Hanson: John, (Final) 28, Granville Park,
 Lewisham, S.E.13. Morris de Metz, A. H.
 Devereux, E. L. W. Davies.
Hardy: Malcolm Charles, (Final) 24, Gower
 Road, Sketty, Swansea. H. T. Wykes, O. S.
 Portsmouth, C. G. Tagholm.
Harrison: Thomas Stanley, (Special Final)
 Newchurch Hall, Culcheth, Nr. Warrington,
 Lancs. Clifton Edwards, J. R. Piggott, T. L.
 Viney.
Henshaw: Alec James, (Special Final) 'Sunnymede',
 Knockholt Road, Halstead, Sevenoaks,
 Kent. A. C. Hopkinson, R. T. Boutall, Z.
 Sirotkin.
Herbert: Kenneth Robert, Dip.Arch.(Nottm.)
 (Nottingham Sch. of Arch.) 14, Bramcote
 Drive, Wollaton, Nottingham. E. V. Royle,
 J. G. Woollatt, F. A. Broadhead.
Hesketh: Martin Rayner, Dipl.Arch.(Oxford)
 (Sch. of Tech. Art & Commerce, Oxford:
 Sch. of Arch.) Fisher House, Rivington, Nr.
 Bolton, Lancs. Reginald Cave, David Beecher,
 F. T. Pritchard.
Hickox: Herbert Philip, (Special Final) 'Froxfield',
 Garners Road, Chalfont St. Peter,
 Bucks. H. V. Lobb, John Ratcliff, Walter
 Goodesmith.
Hine: Douglas Stewart, (Special Final) 52,
 Holmdale Road, West Hampstead, N.W.6.
 P. Morrey, Lieut.-Colonel Douglas Wallis,
 H. D. Dodd.
Hollos: Brian, (Special Final) 7, Sandhall
 Drive, Highroad Well, Halifax, Yorks. C.
 Sunderland, N. H. Fowler, F. Chippindale.
Holmes: Gerrard Inman, (Final) 18, Oakleigh
 Park South, Whetstone, N.20. T. E. Scott,
 C. G. Bath, S. F. Burley.
Hubberstey: Peter, (Final) 135, Bispham Road,
 Blackpool, Lancs. C. H. MacKeith, H. T.
 Jackson, Halstead Best.
Hughes: Kenneth, (Special Final) 19, Radnor
 Drive, Wallasey, Cheshire. Dr. Ronald Bradbury,
 Prof. R. Gardner-Medwin, B. A. Miller.
Hull: Peter Ronald, (Special Final) 312,
 London Road, Headington, Oxford. G. R.
 Hutton, Reginald Cave, L. J. Ashby.
Inman: John Kenneth, (Final) 3, Lockwood
 Avenue, Poulton-le-Fylde, Nr. Blackpool,
 Lancs. C. H. MacKeith, H. T. Jackson,
 Halstead Best.
Jamieson: Edward Ross Hunter, D.A. (Dundee)
 (Dundee Coll. of Art. Sch. of Arch.) 'Denver
 Cottage', 76, Barry Road, Carnoustie, Angus.
 J. A. Coia, W. S. Gaudie, John Needham.
Jones: Malcolm Warden, (Special Final) 54,
 Rugby Avenue, Greenford, Middlesex. W. H.
 Ansell, A. Bailey, A. A. Stewart.
Jones: Stanley Reginald, (Final) 'Cirrus',
 Lone Pine Drive, Ferndown, Dorset. J. R.
 Sheridan-Shedden, P. A. Shreeve, M. G.
 Cross.
Jowett: Donald, Dipl.Arch.(Leeds) (Leeds Sch.

of Arch.) 69, Dyson Road, Halifax, Yorks.
 F. Chippindale, Frank Booth, Hubert
 Bennett.
Kennedy: Peter Adam, (Special Final) 7,
 Worlingham Road, East Dulwich, S.E.22.
 C. W. Craske, P. B. Dannatt, M. H. Forward.
Kingdon: John Hugh, (Special Final) 'Holmwood',
 97, Grange Road, Guildford, Surrey.
 H. H. Matthews, W. A. Rutter, G. I. C.
 Hight.
Kingston: William James, (Final) 7, Lower
 Fant Road, Maidstone, Kent. Applying for
 nomination by the Council under Bye-law 3(d).
La Bern: Stanley Philip, Dip.Arch.(The Polytechnic)
 (The Poly. Regent Street, London:
 Sch. of Arch.) 34, Teignmouth Road, Welling,
 Kent. J. S. Walkden, G. A. Crockett, L. S.
 Stanley.
Latham: Kenneth Alfred, (Final) 'Sherwood',
 26, Abingdon Drive, Ashton-on-Ribble,
 Preston, Lancs. John Watt, F. N. Pinder,
 G. N. Hill.
Leach: Ronald, (Special Final) 163, Canterbury
 Road, Westgate-on-Sea, Kent. E. R. Collister,
 R. C. Foster, R. O. Foster.
McArthur: Ronald Hunter, (Final) 'Beaumont',
 31, Upper Hibbert Lane, Marple, Cheshire.
 Cecil Stewart, F. L. Halliday, E. S. Benson.
McDonald: William, (Final) 19, Dryburgh Hill,
 West Mains, East Kilbride, Glasgow. Prof.
 W. J. Smith, A. G. Jury, J. A. Coia.
McEachern: Robert Hill, (Final) 4, Campbell
 Street, Renfrew, Renfrewshire, Scotland. G. W.
 Robertson, F. R. Wylie, W. A. P. Jack.
MacGregor: David Roy, B.A.(Cantab.) (Special
 Final) 39, Fife Road, S.W.14. J. P. Lovell,
 H. V. Lobb, G. H. Gould.
Mahdi: Abdul Rahman, (Special Final) 34,
 St. Ann's Villas, W.11. Paul Nightingale,
 Dr. R. Herz, Arthur Korn.
Marlowe: (Miss) Olwen Cynthia, (Special
 Final) 44, Richmond Hill Road, Edgbaston,
 Birmingham, 15. Seymour Harris, S. J. Clewer,
 G. A. G. Miller.
Marshall: Alexander Malloch, D.A.(Dundee)
 (Dundee Coll. of Art.: Sch. of Arch.) c/o
 Robertson, 87, Albert Street, Dundee. J. W.
 Ritchie, Donald Ross, John Needham.
Mason: Charles Edgar, (Final) 13, Ward Road,
 Goldthorn Park, Wolverhampton. A. R.
 Twentyman, G. A. G. Miller, K. A. Lloyd.
Metcalf: William Anthony, (Special Final) 109,
 Sackville Street, Nelson, Lancs. Richard
 Jacques, Samuel Taylor, John Taylor.
Mitchell: Roy, (Special Final) 29, Liverpool
 Road, Chester, Cheshire. E. M. Parkes and
 applying for nomination by the Council under
 Bye-law 3(d).
Moors: Robin Edmund, (Final) 137, Streatham
 High Road, S.W.16. T. E. Scott, C. G. Bath,
 S. F. Burley.
Newall: Antony David, Dip.Arch.(Birm.)
 (Birmingham Sch. of Arch.) 71, Styvechale
 Avenue, Earlsdon, Coventry. A. Douglas
 Jones, Arthur Ling, A. H. Gardner.
Owen: David William, (Special Final) 129,
 Cromwell Road, Hounslow, Middlesex. S. F.
 Burley, A. B. Waters, A. L. Smith.
Palejowski: George S., (Special Final) 457a,
 Grimby Road, Cleethorpes, Lincs. H. S. Hall,
 J. Konrad, T. N. Cartwright.
Palmer: Hubert Ralph, (Special Final) 'Trevo-
 none', Old Listerdale, Nr. Rotherham. D. B.
 Jenkinson, Robert Cawkwell, J. W. Davidson.
Pathare: Ravindra Shamrao, (Final) 38, Priory

Road, West Hampstead, N.W.6. Applying for
 nomination by the Council under Bye-law 3(d).
Pattison: George Eric, (Final) 14, Great North
 Road, Newcastle upon Tyne, 2. F. W. Harvey,
 A. Applegarth, D. L. Couves.
Pegram: Norman James, (Special Final) End
 Lodge, Christmas Common, Watlington, Oxon.
 C. W. Fox, The Hon. Lionel Brett, J. S. Walkden.
Pereira: Albert Percy, (Special Final) 341,
 Middleton Road, Carshalton, Surrey. W. R.
 Fowler, Philip Powell, A. E. Miller.
Pettingell: Geoffrey Antony, (Special Final)
 Cambridge University, Dept. of Estate Management,
 24, Trumpington Street, Cambridge.
 E. J. Ricketts, A. C. Cook, W. E. Marston.
Pettit: Desmond Alan, (Final) 3, Oak Tree
 Drive, Totteridge Lane, Whetstone, N.20.
 J. T. W. Peat, W. A. Lea, T. E. Scott.
Polubiec: Henryk, (Special Final) 75, Eardley
 Crescent, S.W.5. A. E. Miller, Edwin Williams,
 K. L. Sharpe.
Randall: Russell Herbert Lewis, (Special Final)
 26, Waycross Road, Cranham, Upminster,
 Essex. F. H. Risdon, F. E. Jones, Harold
 Conolly.
Roberts: Gordon Harold, (Final) 40, Bleakhouse
 Road, Warley, Oldbury, Worcester. A. Douglas
 Jones, P. W. J. Neale, N. T. Rider.
Sayers: (Miss) Elizabeth Inglis, D.A.(Glas.)
 (Glasgow Sch. of Arch.) 1, Overlee Road,
 Clarkston, Glasgow. Prof. W. J. Smith,
 William McCrea, J. Bell.
Sloan: Merrick, (Final) 'Carlin', 6 Queens
 Drive, Walton, Liverpool, 4. M. G. Gilling,
 Prof. R. Gardner-Medwin, R. R. Young.
Smith: Peter Turle, (Final) 288, Kingston Road,
 Leatherhead, Surrey. J. M. Wilson, H. C.
 Mason, O. F. Savege.
Smith: Royden Matthew, (Final) 31, Paganel
 Drive, Dudley, Worcestershire. A. Douglas
 Jones, Harry Cherrington, A. R. Young.
Smithers: Frederick George, (Special Final) 92,
 Stansted Road, Bishop's Stortford, Herts.
 H. B. Elkington, Lord Mottistone, J. R.
 Young.
Sparkes: Ernest Alfred Walter, (Special Final)
 19, Penhurst Road, Bedhampton, Havant,
 Hants. Frank Mellor, J. V. Quarmby, A. C.
 Townsend.
Stevenson: Ian Paul, (Special Final) 44, West
 Ashton Road, Trowbridge, Wilts. W. Richardson
 White, A. G. Wright, Major A. D. Kirby.
Strachan: Alexander, (Special Final) 40,
 Douglas Road, Scone, Perth. Norman Keep,
 K. M. Young, Donald Ross.
Stubbs: Peter Anthony, D.S.C., (Special Final)
 Yacht 'Frolic', Whitewall Creek, Frindsbury,
 Nr. Rochester, Kent. F. G. A. Hall, J. F. Howes,
 F. L. Jackman.
Sture: John Herbert, (Special Final) 31, Moor
 View Road, Skipton, Yorks. W. C. Brown,
 D. A. Fowler, Kenneth Turner.
Sutcliffe: Kenneth Noel, (Special Final) 150,
 Kingsway, Petts Wood, Kent. S. Clough,
 H. St. J. Harrison, E. H. Firmin.
Tidmarsh: Derek Sidney, (Final) 'Selwick', 104,
 Oak Avenue, Shirley, Croydon, Surrey.
 J. S. Walkden, W. C. Waymouth, E. H.
 Firmin.
Tunley: Anthony Neville, B.Arch., M.C.D.
 (L'pool), A.M.T.P.I. (Liverpool Sch. of Arch.:
 Univ. of Liverpool) 74, Empress Road, Derby.
 F. H. Crossley, Prof. R. Gardner-Medwin,
 E. H. Ashburner.

Turner: Dennis Ivan Ross, (Special Final) 49, Poplar Road, Croes-y-Ceiliog, Monmouthshire. C. L. Jones, H. A. Bull, C. F. Bates.

Tyrer: Stewart Norman, (Final) Flat 1, 3, Mount Street, Liverpool, 1. H. Thearle, R. R. Young, Prof. R. Gardner-Medwin.

Vogt: Anthony George, Dipl.Arch.(U.C.L.) (Bartlett Sch. of Arch. Univ. of London) 110, Demesne Road, Wallington, Surrey. Denis Clarke Hall, Thos. Ritchie, Prof. H. O. Corfiato.

Walker: Stanley Charles, (Special Final) 39, Palmersfield Road, Banstead, Surrey. Dr. R. Herz, Harold Bailly, J. S. Walkden.

Warburton: Brian, (Final) 64, Nipper Lane, Whitefield, Manchester. Cecil Stewart, E. S. Benson, H. T. Seward.

Waterman: Colin John, (Final) 8, St. Bernards Road, Olton, Warwickshire. J. B. Surman, G. S. Kelly, A. Douglas Jones.

Weatherly: Graham Charles, (Final) 254, Horseshoe Lane, Leavesden, Hertfordshire. Application for nomination by the Council under Bye-law 3(d).

West: Herbert George, Dip.Arch.(Abdn.) (Aberdeen Sch. of Arch., Robert Gordon's Tech. Coll.) The Bungalow, Gardenstown, Banffshire. E. F. Davies, John MacLennan, A. B. Gardner.

Williams: Gordon Edward, (Final) 3, Northampton Square, E.C.1. G. R. Dawbarn, Alick Low, G. S. Rhodes.

Williams: Norman Edward Morgan, Dip.Arch. (Manchester) (Victoria Univ. Manchester, Sch. of Arch.) c/o The Castle Cinema, Rhayader, Radnor, Wales. Dr. W. A. Singleton, Dr. Thomas Howarth, E. S. Benson.

Williamson: Frederick David, A.R.I.C.S., A.M.T.P.I. (Special Final) 39, Parkfields Road, Bridgend, Glam. Dr. T. A. Lloyd, Lewis John, L. R. Gower.

Wilson: Roy, (Final) 29, Chelmsford Road, Edgeley, Stockport. Cecil Stewart, F. M. Reynolds, J. H. Bourne.

ELECTION 7 MAY 1957

An election of candidates for membership will take place on 7 May 1957. The names and addresses of the overseas candidates, with the names of their proposers, are herewith published for the information of members. Notice of any objection or any other communication respecting them must be sent to the Secretary, R.I.B.A., not later than Wednesday 17 April 1957.

The names following the applicant's address are those of his proposers.

AS ASSOCIATES (3)

The name of a school, or schools, after a candidate's name indicates the passing of a recognised course.

Beatson: Ronald Guthrie Senior, B.Arch. (Auck. N.Z.) (Passed a qualifying Exam. approved by the N.Z.I.A.) 205, South British Insurance Building, Shortland Street, Auckland, C.I., New Zealand. H. L. Massey, C. R. Ford, W. H. Gummer.

Langley: Philip Charles, Dip.Arch.(Birm.) (Birmingham Sch. of Arch.) c/o School of Fine Arts, University of Pennsylvania, Philadelphia 4, Pennsylvania, U.S.A. A. Douglas Jones, T. M. Ashford, Philip Skelcher.

McPherson: Norman Welland, B.Arch.(Sydney) (Passed a qualifying Exam. approved by the R.A.I.A.) 255A, Castlereagh Street, Sydney, N.S.W., Australia. Cobden Parkes, L. C. McCredie, P. J. Gordon.

Notes from the Minutes of the Council

MEETING HELD 11 DECEMBER 1956

Appointments

(a) *B.S.I. Committee—HIB/12—Steel Casement Windows and Casement Doors for Domestic Buildings*, H. H. Clark [F] in addition to O. C. F. Carey [A]. (b) *B.S.I. Committee—CLB/2—Clay Flue Fittings*, T. Bidwell [A].

Membership. The following members were elected: as Fellows 6; as Associates 41; as Licentiates 2.

Students. 59 Probationers were elected as Students.

Applications for Election. Applications for election were approved as follows: *Election 8 January 1957*: as Honorary Fellows 5; as Honorary Associates 6; as Fellows 6; as Associates 38. *Election 9 April 1957 (Overseas Candidates)*: as Fellow 1; as Associates 5.

Application for Reinstatement. The following application was approved: as Fellow, Douglas Louis Dick.

Resignations. The following resignations were accepted with regret: (*Immediate*) Mrs. Josephine Clare Bodley Scott [A], William Michael Reidy [A], Samuel Hendrik Walters [A], Sidney Morris [L]. (*As from 31 December*) Robert Carruthers-Ballantyne [F], Frank Clemes [F], Harry Hornby Goodall [F], Arthur James Scott Hutton [F], William John Palmer-Jones [F], Thomas Rutherford [F], Joseph Raymond Beloff [A], Frederick Peter Bridges [A], Mrs. Sheila Mary Bright [A], Mrs. Pamela Frank Brightmore-Armour [A], Robert Harold Bulmer [A], Miss Beryl Ruby Cook [A], Mrs. Valerie Mary Davies [A], Mrs. Dorothy Marion Fraser [A], Mrs. Sheila Mary Glen [A], Miss Kathleen Margaret Greenwell [A], Richard Melvil Fane Huddart [A], James Vincent Hull [A], Harold Murton Jeffreys [A], Mrs. Elisabeth Kerslake [A], Mrs. Catherine Mary Helen Lambert [A], Mrs. Betty Irene Laws [A], Mrs. Mary Rosalind Anne Meecham [A], William Stewart Putwain [A], Reginald Ernest Adams [L], Stanley Brierley [L], Leendert Marinus Geers [L], Gilbert Andrew Harrison [L], Edwin Jackson [L], Henry Frederick Keighley [L], Frank Lee [L], Allan Stewart McNair [L], Reginald Alfred John Pye [L], Henry Walter Simister

[L], Archibald Joseph Stringer [L], Sydney Ernest Tarrant [L], Lionel Willoughby Thomas [L], Arthur Francis Underhill [L], John Francis Watkins [L], Percy Albert Woolams [L], Edwin Spencer Hartley [Reid. L].

Applications for Transfer to Retired Members Class under Bye-law 15 (as from 31 December). As Retired Fellows: Ernest Vincent Dyson, Philip Capes Harris, Frederick William Harvey, Harold John Higgs, Basil Hippisley Jackson, James Lomax Simpson, Robert Maclaren Love, Horace Lovell Massey, Henry Jemson Tebbutt. As Retired Associates: Albert Henry Boss, Chester Burton, Alan Buxton Dury, Alfred Crumblehulme Filcroff, Wilfrid Bernard Gostling, Douglas Edward Knight, Rev. Herbert Read Peerless, Harold Fellows Prynne, Henry Percival Shapland, Isaac Alexander Simpson, Max Edward Stahl, Arthur Wilson. As Retired Licentiates: Miss Winifred Barbara Acworth, Robert Reid Black, Victor Harry Grist, Samuel Hatfield James Edward Hellawell, Arthur Maurice Leon, Thomas McGarrigle, Bernard Strachan Pullan, William Herbert Russell, Sir George Edward Stott, Bt.

Obituary. The Secretary reported with regret the death of the following members: Hugh Davies [Hon. A], Emmanuel Pontremoli K.B.E. (H.C.M.), Joseph Emberton [F], Thomas Frederick Ingram [F], Henry Foster King [F], Kumar Ramsinh [F], Harry Ruskin Rowe [F], Walter Stirrup [F], Robin Audre Thomas [F], Charles William Yates [F], Thomas Brammall Daniel [Reid. F], Frederick William Hagell [Reid. F], Arthur Edward Henderson [Reid. F], John Lewis Redfern [Reid. F], Rupert Savage [Reid. F], Albert Dawson Brown [A], Edward Fincham, M.C. [A], Gordan Hemm [A], Herbert Lewis Honeyman [A], Charles Henry Norman Merrifield [A], Alfred Ewart Smith [A], Arthur Raymond Tipling [A], William Henry Trengrove [A], Albert Reginald Broadhead [L], Percy Douglas Geall [L], Edwin Edgar Harold Hamlyn [L], William Reginald Hand [L], Frederick William Pamplin [L], William Henry Fleeming [Reid. L].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

Obituaries

Horace Charles Couldrick [F] died on 4 September 1956, aged 51.

Mr. Couldrick was responsible for Brighton and Hove greyhound stand, Tooting Junction Market, the block of flats known as 'The Holt' at Morden, shops and offices above Wimbledon Chase, and various private houses, large and small.

James Dallas [L] died on 23 October 1956, aged 83.

Mr. Dallas served his articles and practised in Birmingham, eventually becoming the senior partner of Dallas & Lloyd. Among his works were St. Christopher's, the Church of England Children's Society home in Warwick Road, Olton, the old blocks of Little Bromwich Fever Hospital, and many industrial premises in Birmingham. Mr. Dallas is believed to have been the second oldest member of the

Birmingham and Five Counties Architectural Association, which he joined in 1896.

Mr. Dallas was keenly interested in athletics. He was a Judge for the Olympic Games of 1908 held in London, and a member for 65 years and Treasurer for 30 years of the Birmingham and District Amateur Gymnastic Association. He was a member of the Faith and Hope Lodge of Freemasons for 26 years.

Hugh Davies [Hon. A] died on 12 November 1956, aged 88.

Mr. Davies devoted his life to education in the fields of architecture and building. Born at Treffgarne in Pembrokeshire, he attended the village school and was apprenticed at Pembroke Dockyard as a carpenter. Moving to Cardiff when he was 21, he worked at night school and won a Cardiff County Senior Scholarship at 24. He spent three years at Cardiff University College and this led to an architectural course at the Royal College of Art and at King's College, London University.

Mr. Davies practised for some time as an

architect but meanwhile taught at evening classes and in 1903 he was appointed Head of the Building Trades Department at the Northern Polytechnic. In 1912 he became an Inspector of building subjects with the Board of Education. During the First World War he was seconded to the Department of Scientific and Industrial Research and was largely responsible for the establishment of the Building Research Station. He was elected Honorary Associate of the Royal Institute in 1928.

In that same year he retired from the Board of Education and then became busier than ever on education committees and on the Joint Industrial Councils of the building industry. He continued with these activities until his last years, and even then, though physically frail, remained completely alert in mind.

He never lost his love for his birthplace and his native county of Pembrokeshire, where he built a bungalow with his own hands for family holidays. He was always on the alert for threats to the region's natural beauty and did much to rally local opinion to protect local scenery wherever it was threatened by industrial development and to help in finding satisfactory compromise solutions.

Joseph Emberton [F] died suddenly on 20 November, after making a speech at the Architecture Club supper (see December JOURNAL, p. 49). He was 66 years of age.

Mr. Emberton trained at the Royal College of Art and began his career in the office of Sir John Burnet & Partners. In 1922 he went into partnership with Mr. P. J. Westwood [F] and the firm was commissioned to design several pavilions at the Wembley Exhibition.

In 1926 the partnership was dissolved and Mr. Emberton set up in practice on his own account. Among his individual works were the Royal Yacht Club pavilion at Burnham-on-Crouch (for which he was awarded the R.I.B.A. Bronze Medal for Essex, Cambridge and Hertfordshire 1931), the Empire Hall and garage for 1200 cars at Olympia, Messrs. Simpson's shop in Piccadilly, shops and showrooms for the Gramophone Company in Oxford Street and the Casino, Blackpool. More recently Mr. Emberton designed a group of tall blocks of flats in Finsbury and was nominated architect for the new Queen's Hall, but this project was shelved.

Mr. Emberton was a strong advocate of the building of high flats rather than small single houses and a pioneer in the use of new materials—reinforced concrete, stainless steel, glass.

He served on the Council 1933-39 and on the London Architecture Medal Jury, the London Building Act Committee, the Prizes and Scholarships Committee, the Public Relations Committee, the Science Committee and the Business Buildings Committee (Ministry of Works Directorate of Post-War Building).

A memorial service was held for Mr. Emberton on Friday 30 November in the Grosvenor Chapel, South Audley Street, the Archdeacon of Lewes officiating.

Mr. S. H. Statham [A], Hon. Secretary of the R.I.B.A. Golfing Society, adds:

'Apart from the wide circle of friends who will miss Joseph Emberton in the architectural world, there is one field in which his absence will be particularly missed and that is the R.I.B.A. Golfing Society. Joe—as he was always known to his many golfing friends—had been a member of the Society since the early days of its formation and was a familiar figure on the golf courses of the British Isles. He had been a member of the Committee of the Society since 1953 and had been elected Captain for 1956-57.

'Although never playing off a very short

handicap, he was a regular winner for the R.I.B.A. Golfing Society in the matches against other societies, and in 1952 he won the Sullivan trophy at the Society's spring meeting held at Denham. All the members of the Society will say good-bye to a great friend and a good golfer.'

Thomas Wallis Gordon [Retd. A] died on 21 August 1956, aged 87.

Mr. Gordon was formerly City Engineer and Surveyor of Nottingham. His father was City Building Surveyor before him, and Mr. Gordon, after serving his articles in the city and spending a period in the Engineer's Department of the Midland Railway at Derby, entered the service of the Nottingham Corporation in 1895. He became City Engineer and Surveyor in 1922.

The value of the public works carried out under his supervision was about £9 million. They included the outer and inner ring roads, the City War Memorial and the first crematorium for Nottingham and district.

Mr. Gordon was a Freeman of the City of Nottingham and, in Freemasonry, the first initiate of the Nottingham Munia Lodge, of which he was Past Master. He held the rank of Past Provincial Grand Deacon in the Province of Nottinghamshire. He was for several years Chairman of the River Trent Catchment Board and of the Nottinghamshire Agricultural Wages Board. In 1929 he was President of the Nottinghamshire Society of Engineers.

Charles Dearman Hawley [F] died on 29 August 1956, aged 70.

Mr. Hawley was adviser to the Records and Ancient Monuments Committee, Surrey County Council, and was the author of *Antiquities of Surrey*, written at the Committee's request.

Mr. Hawley was never in private practice on his own account, but held a number of posts as assistant and at one time carried out some work on the plans for Selfridge's store.

Arthur Edward Henderson, F.S.A. [Retd. F] died on 8 November 1956, aged 86.

Mr. Henderson was educated at Aberdeen served his articles with Mr. T. Heygate Vernon [F] of Westminster and was Owen Jones Student 1897. He visited Constantinople, where he lived for some years, acquiring a close knowledge of Byzantine architecture. His water-colour sketch of the church of St. Sophia is in the Victoria and Albert Museum. He designed Robert College, Constantinople, and was appointed architect to the British excavations of the Temple of Diana at Ephesus.

On his return to England in 1906 Mr. Henderson specialised in the decoration and restoration of churches and the design of war memorials. The frescoes in Christ Church, Streatham Hill, are a good example of his work. His published literary works include some chapters and the atlas in *British Excavations at Ephesus*, published by the British Museum; 'Architectural Survey of Conway Walls and Castle', *ARCHAEOLOGIA CAMBRENSIS* June and December 1938; and several volumes in the *Then and Now* series, among them one devoted to Fountains Abbey, of which he made a reconstruction model. Mr. Henderson was a member of the Royal Society of British Artists and a Fellow of the Society of Antiquaries.

John Samuel Dawes Hicks [L] died on 17 October 1956, aged 80.

Mr. Hicks practised in Hastings and Bexhill, and continued working right up to the time of his last illness. His special interest was the designing of churches, and some designed by

him stand at Rustington, Southwick and Westerham. He also did much work for local convents and convent schools.

Noel William Hunter [A] died on 23 August 1956, aged only 32.

Mr. Hunter trained at the Architectural Association School of Architecture and held posts as assistant first with the Arcon Group and then with Messrs. Farmer & Dark. At the time of his death he was co-ordinating architect on school projects for Kuwait, Persian Gulf.

Kenneth Thomson Lindsay [A] died on 15 July 1956, aged only 34.

Mr. Lindsay went up to Jesus College, Cambridge, in 1941 with an Exhibition and read history. He took his degree of B.A. in 1942 and M.A. in 1947. He was cox in the University Boat Race in 1948. He subsequently went to the School of Architecture, Edinburgh College of Art, and qualified in 1950. He was awarded the Rutland prize of the R.I.A.S. and first prize in a competition for the design of a travelling exhibition and followed this with a study tour in Denmark.

After short periods as assistant first with the Berkshire County Architect and then with Messrs. Cordingley & McIntyre in Durham he went to the College of Arts, Science and Technology, Ibadan, Nigeria, in 1953 as part-time lecturer in Architecture. In 1955 he also began to practise, in partnership with Mr. Donald L. Ward [A], and they carried out the interior design for the Mainland Hotel, Lagos, the Rex cinema, Zaria, Northern Nigeria and a motor showroom and filling station in Zaria.

Joseph Haydn Miller [A] died on 26 March 1956, aged 61.

Mr. Miller studied at Liverpool University School of Architecture and spent periods first in Belfast then in Shanghai as assistant. In 1932 he set up in private practice in Shanghai and from 1937 to 1942 was Chief Lecturer in Architecture at the Lester Technical College, Shanghai. In 1942 he was interned by the Japanese. After the war he went to San Francisco for a time as assistant to Messrs. Skidmore, Owings & Merrill, and from 1949 to 1956 was an assistant with the City Architect and Director of Housing, Liverpool.

In the First World War Mr. Miller served with the Royal Army Medical Corps and was awarded the Military Medal and Bar.

Edward Phillips [Retd. L] died on 12 April 1956.

Mr. Phillips studied at the Newcastle upon Tyne School of Architecture and then went to the U.S.A. for further studies. He returned in 1915 to join the Royal Engineers and served with distinction, being mentioned in Despatches. He joined Nottingham Corporation in their Housing Department in 1919, became Housing Architect in 1930 and remained with them until his retirement in 1946.

Kumar Ramsinh [F] died on 31 October 1956, aged 50.

Mr. Ramsinh studied at the Architectural Association School of Architecture, London, and began practice in Bombay in 1936. He was a partner in the firm of Gregson, Batley & King [FF/A]. Among his works were a palace for H.H. Maharajaseb of Morvi at Morvi, Bombay Hospital, industrial premises for the Aarey Milk Colony, flats, and Wadia College, University of Poona. Mr. Ramsinh was a member of Council of the Indian Institute of Architects and Vice-President 1955-56 and 1956-57. He was sometime examiner on the R.I.B.A. Examination Board in India.

Members' Column

This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than of posts wanted as salaried assistants for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. H. E. Buteux, A.M.T.P.I. [A], has been appointed Principal Housing Architect in the City of Birmingham and his address is City Architect's Department, Civic Centre, Birmingham.

Mr. Alfred A. Coutts [A] has left the service of the Northern Ireland Housing Trust for an appointment with the City of Coventry Architectural and Planning Department, Housing Division, Bull Yard, off Warwick Row, Coventry.

Mr. John L. Hope [F] is now Chief Architect, New Mulago Hospital, P.O. Box 351, Kampala, Uganda.

Mr. Richard C. Hosford [A] has been appointed architect to the Overseas Division of Dexion Ltd., 65 Maygrove Road, London, N.W.6, and will be pleased to receive trade catalogues and information in connection with housing and building overseas.

Mr. D. Gwyther Jones [A] has been appointed to the staff of the Kumasi College of Technology, Kumasi, Gold Coast, West Africa, as an architect.

Mr. R. T. Kennedy, C.B.E., M.T.P.I. [A], has been appointed to New Zealand's first Chair of Town Planning at Auckland University College.

Mr. Harry Parson, M.C.D., A.M.T.P.I. [A], has been appointed lecturer in Town Planning at the Kumasi College of Technology, Gold Coast. As Mr. Parson will also be doing some architectural work he will be glad to receive trade catalogues, etc.

Mr. J. Ramsay [A] has been appointed Division Architect with the Vacuum Oil Company of South Africa (Pty.) Ltd., Boston House, 44 Strand Street, Cape Town, South Africa. He will be pleased to receive trade catalogues, etc.

Mr. L. A. Roche [A] has taken up a post with Messrs. Munce & Kennedy, 133 University Street, Belfast. His home address, to which all professional correspondence and trade literature should be sent, is now 'Drum House', Drumbeg, Upper Malone, Belfast.

Mr. Hugh Wilson, O.B.E., A.M.T.P.I. [A], Chief Architect and Planning Officer to the Cumbernauld Development Corporation, has now opened his office at Cumbernauld House, Cumbernauld, Dunbartonshire, and will be pleased to receive trade catalogues and samples. Representatives by appointment only at present.

PRACTICES AND PARTNERSHIPS

Messrs. Blackburne Norburn (G. B. E. Norburn [F], G. C. W. Ogilvie [F] and P. B. A. Browning [A]) have taken into partnership **Mr. John Pickering [A]**. The firm will continue to practise in Nairobi and Mombasa under the present style of Blackburne Norburn.

Mr. John A. Cole [A] has begun practice at 63 High Street, Thornbury, Glos. (Thornbury 3142), where he will be pleased to receive trade catalogues, etc.

Mr. V. C. Jamieson [A] has begun private practice at Broadway Chambers, Haywards

Heath, Sussex, and will be pleased to receive trade catalogues, etc. (Haywards Heath 1983).

The practice of Leathart, Son & Tingay has been dissolved by mutual consent on the retirement therefrom of Mr. John P. Tingay [A]. This practice will be carried on under the style of **Julian Leathart & Son** at 49 Welbeck Street, London, W.1 (Welbeck 0555), and at Mount Lodge, Sunningdale, Berks. (Ascot 1256). **Mr. Tingay** will practise under his own name at 5 Cheney Street, Eastcote, Pinner, Middx.

Messrs. Lyons, Israel and Ellis [AA] have taken into associateship **Mr. A. H. Colquhoun**.

Mr. John Calder Peeps [A], Associate Professor, School of Architecture, University of British Columbia, and **Mr. Wilfrid Richard Ussner [A]** have entered into association and will practise jointly as **Ussner & Peeps**. The Vancouver office (Mr. Peeps) will be at 4439 West Fourth Avenue, Vancouver 8, British Columbia (Alma 0475-Y), and the Fraser Valley office (Mr. Ussner) at 2824 St. George Street, Port Moody, British Columbia (Port Moody 106-G).

Mr. J. S. Thompson [A], practising under the style of **C. E. Hanscomb & Partners** and also **W. L. Eves & Partners** at 6 South Street, Epsom, Surrey, and 54 High Street, Uxbridge, Middx., has now opened an additional office at 32 The Mall, Ealing, W.5 (Ealing 3802/3), to which all communications should preferably be addressed.

Messrs. Williams, Pettett & Hope (H. Chas. Pettett [F] and R. T. Hope [A]) have taken into partnership **H. L. Thorne [A]** who has for some time been associated with the firm. The title of the firm is to remain unchanged, also the address at Norwich House, 58-62 High Street, Epsom, Surrey.

Messrs. J. M. Wilson, H. C. Mason & Partners [F/A/L] of 3 Chandos Street, Cavendish Square, London, W.1, announce that **Mr. H. C. Mason, O.B.E. [F]**, and **Mr. O. F. Savey, M.C. [F]**, retired from the firm on 31 December 1956.

CHANGES OF ADDRESS

Mr. L. L. Bellotti [A] has changed his address to 49 Ashbourne Grove, Whitefield.

Mr. Peter A. J. Dalton-Jones [A] has arrived in the U.S.A. to work with Mr. Warren H. Ashley, A.I.A., on a school building programme. His address is Apartment 311, The Shelbourne, 600 Asylum Avenue, Hartford, Connecticut, U.S.A.

Mr. G. J. Elliott [A] is now at 51 Boyce Avenue, Mount Roskill, Auckland, S.3, New Zealand.

Mr. Maxwell Gray [A] has moved his office to 40 Bedford Street, Strand, London, W.C.2 (COVENT Garden 0565).

Messrs. R. Towning Hill & Partners, A.M.T.P.I. [AA], have changed their Bristol address to 18 Orchard Street, Bristol 1.

Mr. Alan Irvine [A] has changed his office address to 48 Conduit Street, London, W.1 (REGENT 3196).

Messrs. Leonard Manasseh & Partners [AA] have moved to 39-40 Bedford Street, Strand, London, W.C.2 (COVENT Garden 2907-8).

Mr. Dan J. Middlebrook [A] has changed his private address to 12 Newport Road, Cambridge 40, Mass., U.S.A. He has taken employment with Messrs. J. Carl Koch and Associates, 55 Brattle Street, Cambridge, Mass.

Mr. Martin Priestman [A] has moved to larger office premises at One, Churchyard, Hitchin, Herts, and will be pleased to receive trade catalogues, etc.

Mr. T. B. Sanders [A] has changed his address

to 63 Twyford Avenue, Acton, W.3 (ACORN 5408).

Mr. Michael J. F. Secrett [F] has moved his office to Westminster Bank Chambers, The Mall, Ealing, W.5 (EALING 3769).

Mr. R. Sergeant [A] has changed his address to 166 Trent Valley Road, Penkhull, Stoke-on-Trent.

Mr. Eric A. Stroud [A] has changed his address to Scott Villa, Scott Road, Milehouse, Plymouth, Devon.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Member going abroad wishes to dispose of well established practice on south coast. Principal would remain for 3-6 months to effect introductions, etc. Apply in strict confidence to Box 1, c/o Secretary, R.I.B.A.

Partnership or senior appointment carrying full responsibilities leading to partnership required by a Fellow with 18 years' experience at home and abroad. Capital is available in proportion to prospects and London or surrounding counties preferred. Own office available if considered advantageous. Box 3, c/o Secretary, R.I.B.A.

Practice or part practice required by Fellow. High class varied experience in official work and private practice; at present sharing a successful practice, but is wishful to expand. Some capital available. Box 4, c/o Secretary, R.I.B.A.

Fellow returning to England mid-July 1957 seeks association with either large office with overseas commitments where wide experience of private practice in the Far East and tropical Africa would be of value or a developing country practice where a second partner would be welcome. Capital available. Box 78, c/o Secretary, R.I.B.A.

FOR SALE

For sale. Dumpy level (Reynolds patent, Birmingham), tripod and staff. Good condition. Any reasonable offer considered. Box 2, c/o Secretary, R.I.B.A.

The Royal Institute of British Architects, as a body, are not responsible for statements made or opinions expressed in the JOURNAL.



PROFESSIONAL LIABILITY

THE ARCHITECT is always exposed to the risk that allegations of negligence with claims for damages may be made against him in connection with his work. It is true, of course, that frequently such claims prove to be unfounded, but legal expenses—often very heavy—must be incurred in refuting the allegations. Costs awarded against an unsuccessful claimant may prove to be irrecoverable.

A.B.S. Insurance Agency Ltd. in conjunction with Lloyds Underwriters offers indemnity against any claim in respect of alleged neglect, omission or error including the costs of litigation in defence of such claim.

For a modest annual premium an architect can thus protect himself against the ever-present possibility of being faced with the expense of a substantial claim with all the attendant legal charges and the strain and uncertainty inseparable from litigation.

Particulars from:
A.B.S. Insurance Agency Ltd., 78 Wimpole Street, London, W.1. Tel. WELbeck 1526.

A Con

ved his
s. The

dress to
oke-on

address
e, Phy

of well
principa
intro
nce to

arrying
nership
erience
able in
on of
office in
Box 1

Fellow
ork and
ccessful
capital

y 195
ce with
erience
tropical
elopine
r would
78, c

patent
ndition
2, c

ts, as
made o

LITY

the risk
ims for
conneo
se, that
ounded,
must be
Costa
ant may

unction
demnity
neglect,
of litiga

architect
e ever
with the
all the
ain and

Wimpole
626.

JOURNAL